OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro GAMER

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LORD SUGAR GETS NOSTALGIC

THE APPRENTICE STAR ON THE SUCCESSES AND FAILURES OF HIS AMSTRAD RANGE

JURASSIC LARK: REVISITING TUROK

YOUR ESSENTIAL GUIDE TO ACCLAIM'S EPIC NINTENDO 64 DINOSAUR BLASTER

CONTRA

NOBUYA NAKAZATO RETURNS TO HIS SNES HIT *CONTRA III* AND THE EXPLOSIVE MEGA DRIVE FOLLOW-UP, *CONTRA: HARD CORPS*

PLUS

SOLARIS
RAYMAN
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PILOTWINGS
MASTER SYSTEM

ALSO INSIDE THIS ADRENALINE-FUELLED ISSUE...

CROSS-EXAMINING PHOENIX WRIGHT

SHU TAKUMI GIVES HIS TESTIMONY ON CAPCOM'S QUIRKY GBA MELODRAMA

THE RISE AND FALL OF GRAFTGOLD

BRAYBROOK AND TURNER DISCUSS HEWSON, PARADROID AND BAD LUCK

ULTIMATE GUIDE: FLYING SHARK

TAKE TO THE SKIES IN TOAPLAN'S HIT ARCADE SHOOT-'EM-UP

Future

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THE RETROBATES

WHAT'S YOUR FAVOURITE GRAFTGOLD GAME?

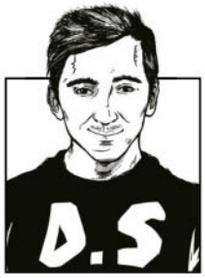
DARRAN JONES

It's probably *Rainbow Islands*, mainly because it's an excellent conversion that makes up for the disappointing Amstrad *Bubble Bobble* port.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine

Currently playing:
Skyrim In Your Face

Favourite game of all time:
Strider



DREW SLEEP

I'm quite partial to taking down dreadnoughts in a blaze of glory, and *Uridium 2* lets me do just that.

Expertise:
Obliterating my tower-of-Babel-sized backlog before 2017 bows out

Currently playing:
Skyrim On A Bus

Favourite game of all time:
Final Fantasy VIII

NICK THORPE

The local play scheme had a copy of *Fire & Ice* for the Amiga, so I've got fond memories of playing that. If only the Master System version had been released here…

Expertise:
Owning five Master Systems (I sold two)

Currently playing:
Danganronpa V3: Killing Harmony

Favourite game of all time:
Sonic The Hedgehog

SAM RIBBITS

I wasn't overly familiar with Graftgold's catalogue until this issue, but I've always appreciated *Fire & Ice*'s colourful aesthetics.

Expertise:
Ignoring Christmas until it goes away

Currently playing:
Super Lucky's Tale

Favourite game of all time:
Croc: Legend Of The Gobbos

ANDREW FISHER

Intensity on the C64 – one that more people should try, with gorgeous bas-relief graphics and mutating enemies.

Expertise:
Commodore 64 and Nintendo player for over 30 years

Currently playing:
Secret of Mana

Favourite game of all time:
The Sentinel

GRAEME MASON

As much as I can appreciate Andrew Braybrook's output, I'm sticking to the Speccy and Steve Turner's *Quazatron*.

Expertise:
Adjusting the tape azimuth with a screwdriver

Currently playing:
Telltale's The Walking Dead Season 2

Favourite game of all time:
Resident Evil 4

PAUL DRURY

Uridium is a fantastic blast, but I'll go for the esoteric charms of *Gribbly's Day Out*. Odd but inspired and another reason to love Andrew Braybrook.

Expertise:
Rare Centuri coin-ops

Currently playing:
Call Of Duty: WWII

Favourite game of all time:
Sheep In Space

JASON KELK

Much as I like *Paradroid, Uridium 2* or *Intensity*, the Graftgold game that has held my attention most over the years is *Uridium* on the C64.

Expertise:
Being a homebrew hero

Currently playing:
Humanoid (Atari 8-bit)

Favourite game of all time:
Io

MARTYN CARROLL

Has to be the Spectrum version of *Rainbow Islands*. Was there a better coin-op conversion on the Speccy?

Expertise:
Sinclair stuff

Currently playing:
R-Type Dimensions

Favourite game of all time:
Jet Set Willy

LOADING...

've always wanted to put *Contra III* on the cover. It's one of the first Super Nintendo games that really wowed me from a graphics perspective, and I remember flicking through the latest issue of *Mean Machines* and drinking in all the glorious looking screenshots as I read the glowing review it had received.

A few years later I played *Contra: Hard Corps* on the Mega Drive (I've always been a big fan of the series) and I discovered that it was equally good, even though it's a very different game to its SNES counterpart. Once again directed by Nobuya Nakazato, it's a blisteringly fast-paced run-and-gun that makes its SNES counterpart feel like a pleasant stroll through a park. Both games push their respective hardware, but the Mega Drive effort seems to strain that little bit harder and as a result it has always impressed me that little bit more.

It's a real delight then to not only interview the director of both games about their creation, but also to feature Paul Mann's stunning artwork that he created for Mondo's vinyl release of the *Contra III* soundtrack. It's taken us 12 long years to pull off, but one of the best shooters from the 16-bit period now graces the cover of **Retro Gamer**. Good things really do come to those who wait.

Enjoy the magazine!

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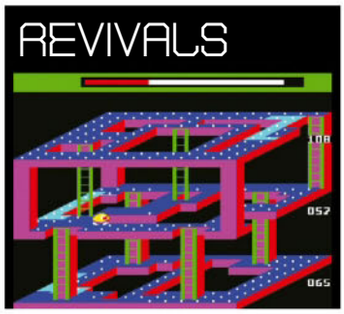

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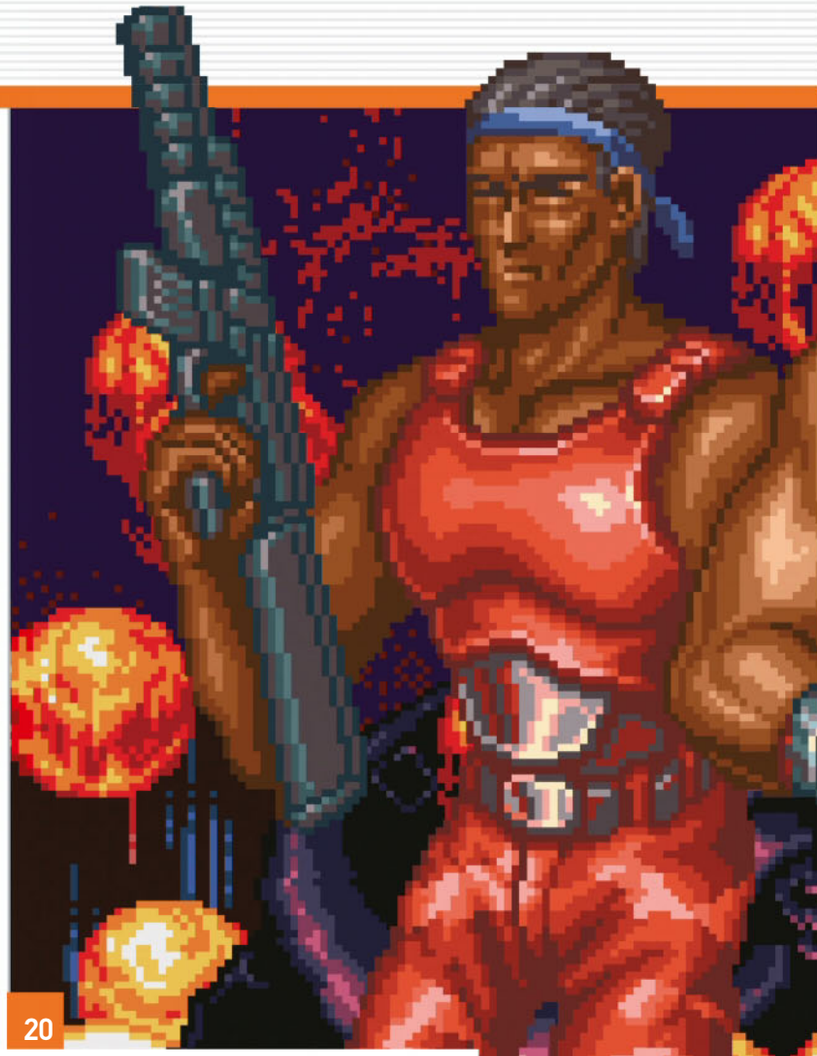

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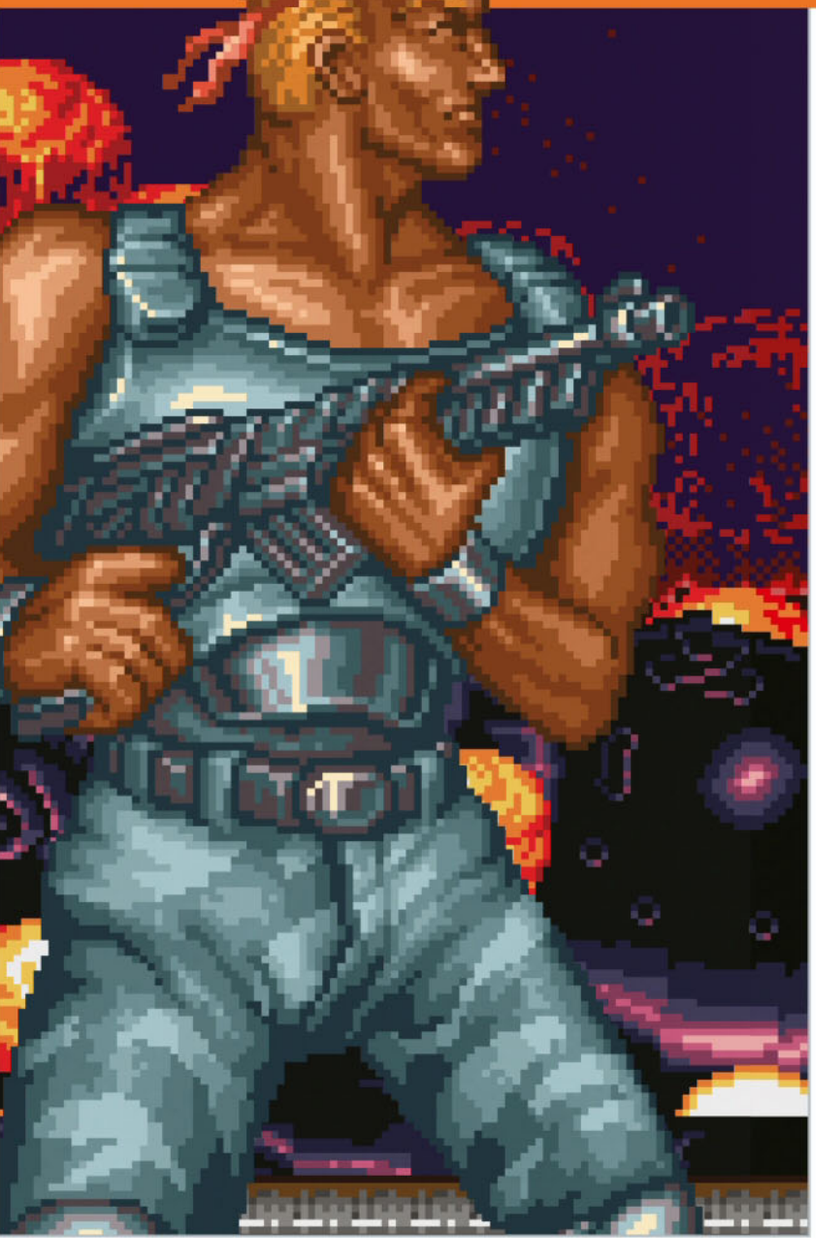

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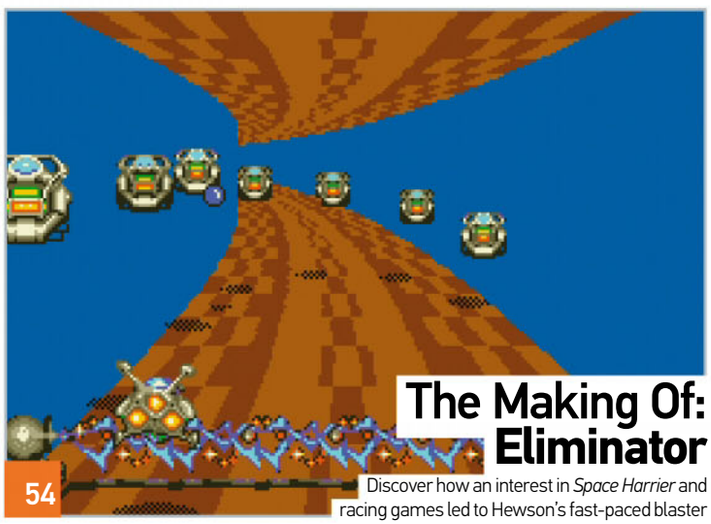

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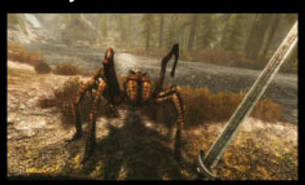

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THE ULTIMATE ROB HUBBARD TRIBUTE

Chris Abbott discusses his exciting new Kickstarter project

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Nick makes a final stop in the year 2000

Rob Hubbard is one of the most famous gaming composers of all time. He is best known for his work on the Commodore 64, but he has actually worked on all sorts of systems over the years, including the Amiga and the Mega Drive, and he remains a force to be reckoned with. To highlight his illustrious and storied career, Chris Abbott has recently turned to Kickstarter where he successfully funded several exciting projects based around Rob's work. Here he tells us how Project Hubbard came together.

Why choose to do a Kickstarter?

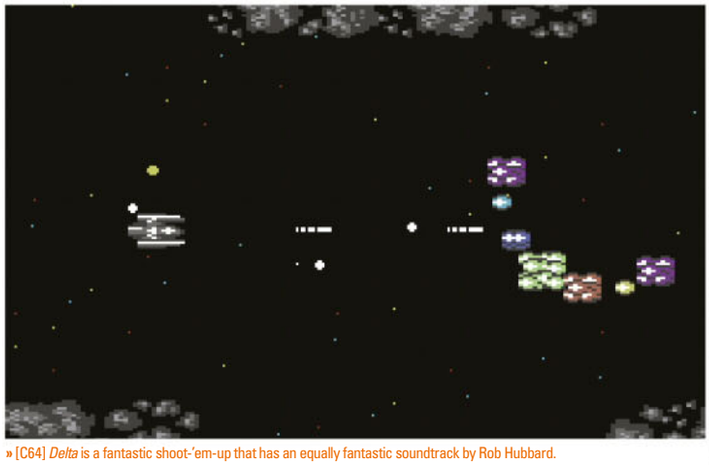
There's a sense of 'occasion' and 'journey' from a Kickstarter, and the time-limited nature lends itself well to a self-contained story for backers to follow. More practically, Project Hubbard is an expensive project with a big cast, and a huge time commitment, so you really need to work out very quickly if there's sanity in your numbers. There are always surprises.

Why release a book, CDs, vinyl, cassettes and a game?

Part of the initial attraction for the project for Rob was being able to tell the story of his entire multi-decade career, and we felt that story couldn't be told just with a book, or just with music.

We had lots of material and collaborators lining up. We felt we had one shot at getting history into place and giving Rob's fans the ultimate package of reading and listening. The *Rob's Life* game, though, was a late addition, to have a bit of fun with the Eighties personality of Rob Hubbard' by putting him into a game.

There was a great free game for PC and Mac as part of the campaign. It was called *RoboRob* (by the studio OneBitRobot) and featured Rob in space shooting waves of C64-themed enemies. Putting Rob in an actual Commodore 64 cartridge seemed like a very apt way to pay tribute.



» [C64] *Delta* is a fantastic shoot-'em-up that has an equally fantastic soundtrack by Rob Hubbard.

Tell us a little more about the game, *Rob's Life*?

Psytronik had just finished and released a *Mikie* clone called *My Life* for the C64, and the biographical nature of the project meant *Rob's Life* was perfect. So Rob (and some other C64 characters and personalities) were put into the game by the team of Trevor Storey and Achim Volkers. It was also a good chance to put in some of the new SIDs, thus making Rob into a game music composer again!

» [C64] The soundtrack to *Monty On The Run* is regarded to be one of Rob's best, and rightly so.

» Rob Hubbard is widely regarded as one of the best games music composers of all time.

> **"Rob is also curating rerecorded and remastered rare and unpublished material"**
>
> Chris Abbott

How much involvement is Rob having with the project?

The book is relying exhaustively on Rob's own documents, clippings, scans and recollections. He's been working hard with us to nail down timelines and provide much more background than has ever been put out there before. I just hope 300 pages is enough.

Tell us about the music side of Project Hubbard.

He's working on the definitive C64 tunes studio album. It's called *Hubbard Eighties* and it's reimagining the SIDs as if they had been originally composed for an electronic studio album in 1979. His engineer is synth expert Marcel Donne (Project Sidologie). They will be targeting vintage modular synths that existed in 1979. Given it's supposed to be a Eighties album, it makes sense that the album would be on vinyl and cassette, as well as CD and download.

Rob is also working with Jason Page on brand-new Rob Hubbard SIDs. They're created from material Rob composed both before and after his SID career. They're being implemented with 100 per cent authenticity in the final version of Rob's legendary C64 driver. Jason is also working with Rob to upgrade the driver with some new features, though they're not altering that distinctive Hubbard sound. Audio backers get these on CD/digital, but deluxe backers get them as a ZIP file for C64 and emulator, and some VIPs get a 5.25-inch floppy disk.

For the third (double) album, Rob is also curating rerecorded and remastered, rare and unpublished material. This includes *Radio Ace* and *Work Opera* and other material ranging from early Eighties-style synth tracks to more recent symphonic orchestrations. Some of these lost treasures are presented as scans in the book.

What do you think sets Rob apart from other composers of the era?

The breadth and variety of his musical background, which included jazz, live performance, studio and improv. This combines with a disciplined approach to crucial aspects such as structure, melody, composition and harmony that you hardly ever see outside of academia.

Why are stretch goals so important to Kickstarter projects likes this, and which one are you most excited about achieving?

Stretch goals give energy to a campaign, and keep backers engaged. Seeing the stretch goals go down is like winning at a fruit machine (except you might win a Rob Hubbard source code bookmark). It's good that legends such as Matt Gray and Allister Brimble get to pay tribute to Rob in their own way.

» A good Kickstarter has loads of cool perks and Project Hubbard is no exception.

The main stretch goal I'm excited about is the one we didn't achieve: the London Symphony Orchestra concert (the scoring of which was funded by another Kickstarter back in 2015). It's a historic night of celebration that has to happen. It's even got a BBC micro medley! But, we have other plans on how to promote/fund/get sponsorship.

Finally, what's your favourite Rob Hubbard tune and why?

Kentilla, because it's 15 minutes of pure escapist fantasy.

READER'S WEIGH IN

What's your favourite Rob Hubbard tune?

Monty On The Run is quite the no-brainer, isn't it?
Thomas Touzimsky

I'll go for *Hydrofool*. It's a catchy tune for sure, but perhaps most importantly it was the soundtrack to a game that I played a heck of a lot.
Matt_B

Monty On The Run, followed closely by *Commando* and *Delta* (specifically the loading theme).
Rui Pedro Santos

Lightforce. That was one of the first games I remember just sitting there and listening to the whole soundtrack because it was so incredible.
ncf1

Warhawk on the A8. After almost half an hour waiting for the game to load, amazing music came blasting out of the TV.
paranoid marvin

Road Rash Pacific Coast. Not a lot of people know it is Hubbard, even though it's *very* similar to his ZX Spectrum *Thunder Cats* theme.
Jay X Townsend

If you want to mention Hubbard compositions outside of the Commodore, I'd suggest *Hydrofool* (Spectrum/CPC exclusive).
Árni Vikingur

Auf Wiedersehen Monty. It just gets stuck in your mind after you first listen it.
Jesús Brotons

Always loved *Zoids* even though it was based on *Ancestors* by Synergy... but I didn't know that at the time and probably won't feature, but hey ho!
Mark Stebbing

Crazy Comets - it be proper cray cray!!!
David Chambers

» [PS Vita] Mark feels the Switch version of *Putty Squard* will be a good improvement over its Vita release.

SYSTEM 3 STEAMS AHEAD ON SWITCH

MARK CALE ON THE COMPANY'S LATEST RETRO-THEMED RELEASES

System 3 has been creating games for 35 years and it is showing no sign of slowing down. A driving force on the Commodore 64, System 3 was responsible for hits like *The Last Ninja* and *International Karate* and it's been going strong ever since. It's now released a number of its classic titles on Nintendo's Switch so we're keen to find out what interested Mark about publishing on the system. "It was an easy choice," he begins. "Nintendo Switch is a comfortable platform with extremely user-friendly ergonomics that lend itself to our games. It is the best handheld gaming machine to emerge in years, and this excites us. Our games are traditionally graphically stunning, intuitive and instinctive so they complement the platform in a way we didn't think imaginable. We hope going with three games is a shot in the arm for retail and shows a commitment to the format. Our games fit the machine: it's as simple as that. We have enjoyed a good partnership with Nintendo for almost 30 years. It's a relationship that thrives on us looking at their hardware and working with them to help maximize the potential of their consoles. Our games sit well with Nintendo and I'm proud of that."

» Mark Cale has been running System 3 since 1982 and is a big pinball fan.

The three games in question are *Constructer Plus*, *Putty Squad* and *Stern Pinball Arcade* and all three are being supported with both digital and physical releases, with Mark feeling that the physical releases are important. "We shouldn't underestimate the boxed game. There is a collectability and sense of ownership that doesn't necessarily come with digital content," he continues. "I think of it as a good paper book that you can hold, feel and smell and put away. It has a longevity and worth that is lost to a degree with downloaded content."

While all three games have been released on previous formats, Mark feels that these are worthwhile upgrades. *Putty*'s gameplay has been completely rebalanced and makes full use of the touchscreen and Mark says, "It looks and feels superior to previous incarnations". Mark's most excited about *Constructor Plus*, however, and it's clear that his team has been adding a lot of improvements. "The Switch version has a whopping 80 per cent more content than the previous HD game and boasts a huge increase of up to 101 buildings versus the previous 44," he begins. "It is effectively a brand-new game that keeps the traditional style and structure familiar to existing fans of the game worldwide." System 3's *Stern Pinball Arcade* is also important to Mark as it focuses on his love of pinball and many of the featured tables are tied to big movie licences, including *Star Trek*, *Ghostbusters* and *Starship Troopers*. Naturally, we want to know more. "The tables were a personal choice," he begins. "I've always played pinball in arcades and, like anyone else, I enjoy a good film. We went with a selection of the best Stern tables with filmic styles that give each table a strong Hollywood identity. Picking them was an absolute joy. I hope gamers get as much fun out of them as I have."

» *Constructor* is a well-known System 3 game, and we're excited to play it on the go.

These latest Switch releases not only highlight some of System 3's popular titles, but also show the adaptability of System 3 as a publisher. 35 years is a lifetime in videogames, so we're keen to know the reason behind Mark's success. "I love games," he concludes. "They have defined a generation in my lifetime and I'm proud that System 3 has helped shape and be part of the historic gaming landscape. We are gamers, it's in our DNA and I think that passion reflects in our titles. Gameplay and originality are synonymous with what we have always done. They are vital ingredients that are often overlooked by others but we have a 35-year history built on these simple principles. And long may it continue."

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Another World Official Soundtrack

For a generation of gamers, *Another World* was the first game that truly felt like a movie. The animations and wealth of alternate views in death cutscenes gave the game a dynamic look, while its set-pieces were truly epic. But the cinematic aspirations of *Another World* couldn't have been realised without the soundtrack provided by Jean-François Freitas, and this reorchestrated vinyl release is recognition of his excellent work on the game's audio. The soundtrack of *Another World* is moody and understated, serving as a background accompaniment that added atmosphere rather than drawing attention to itself. Tracks such as *Another World* and *Cold Echo* are decidedly ambient, with a high tempo reserved for a select few pieces such as *Escape*. If you haven't revisited the soundtrack in a while, this is an excellent way to do it.

Price: £27.45 **From:** amazon.co.uk

PICK OF THE MONTH

Coffee Crisis

Those pesky Smurglians have come down to our planet, intent on stealing our finest things. To stop them, one or two players can take control of battle baristas Nick and Ashley and slap the invaders about with sacks of coffee beans. This is a fully playable region-free Mega Drive game, with case, manual and translucent-coloured cartridge – but be warned, though: some clone consoles won't run it.

Price: $49.99 **From:** megacatstudios.com

The Comic Book Story Of Video Games

This fascinating book by Jonathan Hennessey and Jack McGowan attempts to tell the history of videogames in illustrated form, mixing the technological and social history of the medium with profiles of famous creators. It feels like it jumps around a little, due to the way that it connects themes across history, but it's an innovative way of conveying the story.

Price: £13.34 **From:** amazon.co.uk

Team Rocket T-shirt

Are you constantly losing to upstart children when playing *Pokémon* games? Are you villainous and incompetent in equal measure? Then you might just love this item of clothing, which lets you pledge your allegiance to the original antagonists of the monster-catching universe. This item comes especially recommended for anyone who happens to be named Jessie or James.

Price: £24.00 **From:** insertcoinclothing.com

Video Games FAQ

For anyone that hasn't got a clue about videogames, Mark J P Wolf's new book is a thorough introduction to the subject, which reaches far beyond the retro games that adorn its cover. The book covers everything from the creation of Ralph Baer's 'Brown Box' to topics such as procedural generation, augmented reality and more, with a slight American slant.

Price: £17.99 **From:** hive.co.uk

STREET HEAT

THE ESSENTIAL FOUR-PLAYER PARTY RACER!

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Here's my bio... Paul Rose
Paul Rose is probably better known as Mr Biffo – the creator and chief writer of legendary teletext games magazine *Digitiser*. These days, he mostly writes for kids TV, but can still be found rambling on about games, old and new, for his daily website, Digitiser2000.com.

Feel the force

We live in a *Star Wars* universe. Not literally, of course. I mean, you can definitely write 'Jedi' on your census form, but it doesn't mean you can actually wield the Force. You can dress up as a Stormtrooper at charity events, but it doesn't make you an operative of an evil empire – [insert controversial political opinion here].

I just mean we now live in a time where *Star Wars* is utterly ubiquitous. It's hard to remember the late Eighties/early Nineties, when *Star Wars* was just something we watched as kids.

There's a new *Star Wars* film released every other week now. The merchandise has gone from being something you got for your birthday as a way to enhance your enjoyment of the films, to burying us beneath a tsunami of needless branding. Once upon a time, there was so little *Star Wars* stuff around that every new *Star Wars* thing was a special.

And get this: my most favourite item of *Star Wars* spin-off merchandise ever, barring the toys which dominated my childhood, was *Star Wars: Dark Forces*.

It cost me close to a grand to play; I bought a PC so that I could play it. It was brand-new *Star Wars* at a time when such a thing only existed in a handful of novels. It was 1995, and we were a few years off of *The Phantom Menace* souring the memories of many *Star Wars* fans. And best of all – it was interactive.

We'd had *Rebel Assault*, *X-Wing*, *TIE Fighter* and the *Super Star Wars* games on the Super Nintendo. But *Dark Forces* was a whole other level of excitement for me; it mixed my favourite genre – the first-person shooter (which was then known as '*Doom* clones') – with my favourite film franchise. It wasn't me reliving an existing story, but putting me inside a wholly original *Star Wars* adventure, with all the sounds, the visuals and action that demanded.

I can't stress the impact it had on me at the time. I hadn't immersed myself in *Star Wars* to that degree since, heck, I'd last played with my action figures, around 1983. It reawakened a love of the franchise, which continues to this day. For me, *Dark Forces* is up there with the original cinematic trilogy in forming the bedrock of my *Star Wars* love.

Going back to it now, it has obviously dated, but so has *The Phantom Menace*. What still shines through (more than *The Phantom Menace*, oddly) is the authenticity of its Star Wars-y-ness. It still feels like proper *Star Wars*, and it was clear that the team behind it got what made *Star Wars* what it was – ironically, in an era when its own creator seemed to have forgotten.

You see it now with the new movies coming from LucasFilm – *Star Wars* is now being made by those who grew up loving *Star Wars*, and they might just be the best custodians of the franchise.

LucasArts is no more, but somebody, somewhere, still owns the rights to *Dark Forces*. It may have been decanonised since Disney bought the rights to *Star Wars*, but I'd murder a swathe of younglings to get a Special Edition of it.

> "Dark Forces was a whole other level of excitement for me"

Do you agree with Paul's thoughts? Contact us at:

RetroGamerUK @RetroGamer_Mag

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Pixwerk

Marco Pappalardo and Thomas Feichtmeir discuss their new Amiga-themed shooter

If you're a fan of *The Chaos Engine*, or just Amiga shooters in general, you might like to check out the recently released *Tower 57* by Pixwerk. We caught up with Pixwerk's Marco Pappalardo and Thomas Feichtmeir to find out a little bit more about the exciting-looking, twin-stick shooter.

» [PC] *Tower 57* has an old-school aesthetic but marries it to more modern game designs.

Tower 57 feels like *The Chaos Engine*. Is that intentional?

Marco Pappalardo: Absolutely! I used to play *The Chaos Engine* on Amiga a lot and this was the main inspiration.
Thomas Feichtmeir: That was an intentional design choice, *The Chaos Engine* was the main inspiration for the game.

Why style it on an Amiga shooter?

MP: Because I was a huge Amiga nerd back in the day! Then we had the chance to port it to actual modern AmigaOSs and we never looked back!

What are you doing to make *Tower 57* stand out from other twin-stick shooters out there at the moment?

MP: Aside from the great pixel art and the kind of mechanics that just weren't possible back then (for example twin-stick shooting due to lack of hardware), we're also trying to emphasise co-op, both local and online. I think not enough games do co-op anymore and it's a shame.
TF: *Tower 57* is not a roguelike – it has a well-thought-out world to it and some story sequences as well. Also, the co-op mode makes *Tower 57* quite unique. The game plays quite differently, depending on if you play alone or with a friend.

How long has the project taken to make and what challenges have you faced?

MP: I started on the engine three years ago, so it's taken about three years. I would say the biggest challenge was getting funded, and balancing work with keeping the community interested in the project.
TF: The first steps were taken in December 2013 and from there it was a spare time hobby project for us. Things only sped up after the Kickstarter in August 2015.

» [PC] *Tower 57* has a large amount of different guns to raise hell with.

> **"I like to believe there will always be a market for pixel art"**
> Marco Pappalardo

What's been the hardest thing to get right, in terms of gameplay?

MP: Definitely the balance of the game, and we're still not quite there but we're working very hard on it.
TF: Since it was our first game we had no real prior experience. And we tried some new takes on mechanics (eg co-op, bodypart system, life system), which is always a big challenge.

Why do you think *Tower 57* will appeal to our readers?

MP: It's got a definite retro feel to it, but at the same time we tried to avoid all the clunkyness and outdated design aspects from that era while retaining the ideas we liked. If you're looking for a similar retro experience as playing old games, but with slightly more 'modern' mechanics and graphics (or if you simply enjoy shooting stuff in co-op) then you should enjoy *Tower 57*!

Why do you think there's been a shift towards 16-bit-styled visuals?

MP: I like to believe there will always be a market for pixel art, but maybe the 8-bit style has been slightly overdone lately, and people are tiring of it. It's also easier to 'wing it' with an 8-bit style, while 16-bit style requires a bit more skill, you can't just get away with a lot of stuff that would pass in an 8-bit game. Personally, I'm glad to see this shift as I think that is when pixel art peaked.
TF: Is there? 16-bit graphics are much harder and more time intensive to craft, but also look different than 8-bit graphics. While 8-bit looks like the NES era, 16-bit (or 32-bit colour-wise) can look like the SNES, Neo-Geo or PlayStation – it's just different.

» [PC] The pair are big fans of *The Chaos Engine*, which explains *Tower 57*'s similarity to the classic game.

GALAXY FORCE 1988 VINYL
"Okay it's been reissued recently via Data Discs but I've had this in my collection since 1995."
PAID: £5

SEGA MULTI-MEGA
"Bought for £40 back in 1995 and I actually used it as a portable CD player for a couple of weeks"
PAID: £40

METAL WARRIORS
"Insanely rare US only follow up to *Cybernator/Assault Suits Valken* - a present from a friend but the receipt says £15 from CEX in London!"
PAID: Free

JEWEL IN THE CROWN
GLEY LANCER
"Bought for £10 back in 2003, I had been after a copy since seeing it in *Mean Machines* (I think) - goes for stupid money now."
PAID: £10

SONY PSX
"The Japan only PS2/DVR hybrid, this is the DESR7700 model with the PSP connectivity. This was a present from my wife. She won't tell me how much it cost to get shipped over here..."
PAID: Free

Storage wars

Readers take us through the retro keyhole

BIO

NAME:
Martin Brear

ESTIMATED VALUE:
Do I have to answer that?

FAVOURITE SYSTEM:
Mega Drive

FAVOURITE GAME:
Gradius

"I HAD A LOCAL SHED BUILDER MAKE IT TO MY SPECS, SO THAT TOOK A FEW MONTHS"

One of the biggest issues with collections is the sheer amount of space that they take up. Some combat this issue by keeping their collections small, while others use a spare room to horde their valuable haul. Reader Martin Brear solved his need for space in a completely different way, he simply created it. "With a plan to expand the family I needed to clear the spare room," he reveals. "There was no way I was going to slim the collection, so I knocked down my leaking garage and set about planning for a dry and secure outbuilding which would give me more room to play and collect."

The end result is a rather desirable-looking games room that's been the envy of many in the **Retro Gamer** office. It serves a secondary purpose too, as Martin also likes to create YouTube videos (find him at Bloggo's Pow). "I had a local shed builder make it to my specs, so that took a few months," he tells us about the shed's creation. "He delivered and assembled it. From there I did the decorating and flooring and made two custom desks by ordering bespoke worktops from a kitchen wholesaler. I wanted two desks specifically so I could have all my systems set up on one and my computer and YouTube recording gear on the other."

That space is needed, as Martin has a lot of different systems, from the Virtual Boy to the Atari Jaguar, but is there anything that Martin is specifically interested in? "I'm a sucker for anything import, PC Engine, Saturn, Famicom; but I do like computers like the C64 and Amiga as well," he reveals. "I use an ID2SD and Gotek respectively for those. The shed might be big but it's still not big enough for all my commodore games."

It might not have space for all of Martin's Commodore titles, but he's still managed to cram an impressive amount of games into it, with a refreshing mix of boxed and non-boxed releases. While prices are inevitably rising in the games collecting scene, Martin still feels that there are plenty of opportunities for budding collectors. "It depends what you want from your retro gaming," he admits. "It's a really bad time to get into NES or SNES stuff, but Spectrum and C64 games are still pretty cheap. For someone new I'd always recommend either a Mega Drive or Master System. There is a good selection of great games that are still not too badly priced."

Regardless of whether you decide to start collecting Commodore 64 games or unboxed copies of Super Famicom releases you're still going to need plenty of space and a shed like Martin's seems to be one of the best ways of achieving that. Does Martin have any advice for anyone wanting to follow in his footsteps? "Don't buy one 'off the shelf'," he concludes. "Have one made to your specifications. Also make sure it has double glazing and insulation." If you've got a games room similar to Martin's then let us know. We'd love to see it.

BACK TO THE NOUGHTIES

DECEMBER 2000 – The PS2 is unleashed outside of Japan and there's a games explosion on all formats, with absolute classics flying about the place left and right. Nick Thorpe is your time-travelling guide to the pick of the bunch…

[N64] Nintendo fans didn't have too much choice at Christmas, but they might just have had the best game.

NEWS DECEMBER 2000

On 15 December, the final reactor at the Chernobyl plant in Ukraine was shut down, over 14 years after the disaster at the plant and almost a year after the country's government had promised it would be closed. Reactor number three was the only one of the site's four reactors which had operated without major incident, but it was not close to meeting international safety standards and had experienced several malfunctions. New reactors in Rovno and Khmelnytskyi were completed in 2004 to compensate for the plant's closure.

Singer Kirsty MacColl was killed at the age of 41 on 18 December. While on holiday with her family in Cozumel, Mexico, a powerboat entered a restricted diving area and struck MacColl, who managed to push her teenage son out of the path of the boat. José Cen Yam, an employee of the multimillionaire owner of the boat, was found guilty of culpable homicide.

The controversial Millennium Dome in London closed to the public on 31 December. Though 87% of visitors reported being satisfied with their trip, the exhibition attracted just 6.5 million visitors – fewer than the initial forecast of 12 million visitors. The shortfall caused a £204 million hole in the Dome's budget that had to be plugged with lottery funds. The structure would not reopen on a full-time basis until 2007.

THE LATEST NEWS FROM DECEMBER 2000

The PlayStation 2 finally became a reality for North American and European players late in November, although supply problems blighted the launch – 500,000 were shipped to North America and 165,000 were made available in the UK. While *Ridge Racer V* and *Tekken Tag Tournament* took the lion's share of attention, both were blighted by poor PAL versions. Instead it was the new exclusives that were the strong points of a sparse launch line-up. *SSX* (9/10 *Official PlayStation 2 Magazine*, 5/5 *CVG*) was spectacularly improved from its dismal early demos, and *Edge* considered *TimeSplitters* (8/10 *Edge*, 4/5 *CVG*) "one of the most obsessively playable and instantly rewarding FPS experiences" – not that this should have shocked anyone, given the former *GoldenEye* talent at Free Radical Design. Of course, critical success was only ever going to be a nice bonus on top of Sony's near-guaranteed sales bonanza.

Sega wasn't about to give up without a fight, however, with a barrage of fantastic Dreamcast games sent forth to shelves for the Christmas season – all of them self-published. *Metropolis Street Racer* (*Edge* 9/10, *CVG* 5/5) finally arrived after numerous delays and proved to be excellent, only to be marred by bugged early production runs. *Jet Set Radio* (*CVG* 4/5, *DC-UK* 9/10) was a fantastically fresh blend of extreme sports and platform game, with a distinctive cartoon look thanks to the 'cel-shading' technique. *Shenmue* (*Edge* 8/10, *GamesMaster* 92%) offered an incredible recreation of a mid-sized Japanese town and offered a modern take on the RPG genre, though some would find it too slow-paced. The conversion of celebrated PC first-person shooter *Quake III: Arena* (*Edge* 8/10, *CVG* 5/5) wasn't an original property like the other games, but *Edge* felt that, "Sega has come good in its promises of online gaming" – something which had been a long time coming. It was a great time to be a Dreamcast gamer, so long as you blissfully ignored Sega's financial status at the time. The company announced revised forecasts for the 2001 financial year, with an expected profit of $130 million becoming an estimated loss of $204 million.

PlayStation owners weren't forgotten, as a set of high-profile sequels got players through Yuletide. *Tomb Raider Chronicles* (10/10 *Official PlayStation Magazine*, 4/5 *CVG*) gave Lara Croft a worthwhile PlayStation send-off, though

[Dreamcast] *Shenmue* did well with critics, who recognised its expansiveness and cinematic ambition.

[PC] *Championship Manager* scored high with the press, and widowed many spouses.

[PlayStation] *Driver 2* was just one of many high-profile Christmas sequels for the Sony set.

[PS2] The over-the-top approach to snowboarding found in *SSX* generated an early PS2 hit for Electronic Arts.

CVG noted that, "Lara simply must undergo some serious life-changing experiences if she's to make the grade in future." *WWF Smackdown 2* (5/5 *CVG*, 93% *GamesMaster*) even managed to appeal to non-fans, thanks to ridiculous ladder and tables matches. *Spyro: Year Of The Dragon* (10/10 *Official PlayStation Magazine*, 4/5 *CVG*) completed the PlayStation's premier 3D platforming series and *Driver 2* (92% *GamesMaster*, 4/5 *CVG*) added on-foot action to the brilliant car chases of the original. Lastly, Would War 2 first-person shooter *Medal Of Honor: Underground* (9/10 *Official PlayStation Magazine*, 4/5 *CVG*) was described by *Official PlayStation Magazine* as, "Not a huge leap forward from the original, but easily as much fun."

Over on the N64, releases were thin on the ground. *The Legend Of Zelda: Majora's Mask* (*Edge* 9/10, *N64* 96%) was the clear highlight of the season, with its time-looping take on the formula considered to be "a hair's breadth away from perfection" by *N64 Magazine*. The console did also receive a couple of high profile licensed games. *007: The World Is Not Enough* (*CVG* 3/5, *N64* 88%) didn't quite live up to *GoldenEye* but gave it a damn good go, and *WWF No Mercy* (*GamesMaster* 90%, *N64* 92%) offered the greatest grappling ever to grace a Nintendo machine – and some would still argue any machine. Unfortunately, it also shipped with a bug which repeatedly wiped save data. Game Boy Color owners got an impressive conversion of SNES favourite *Donkey Kong Country* (*N64* 5/5), with *N64 Magazine* judging that, "Managing to squeeze everything they have onto one small cart is nothing short of a miracle." Other notable releases this month included 16-bit conversion *Cannon Fodder* (*N64* 5/5) and cult favourite *Monkey Puncher* (*N64* 4/5).

Over on the PC, annual sporting obsession *Championship Manager* (*GamesMaster* 92%, PC Zone 93%) was ready to wreck even more marriages. *Baldur's Gate II: Shadows Of Amn* (*Edge* 8/10, *PC Zone* 85%) was a treat for RPG fans, with *PC Zone* commenting that, "The plot is much better, the range of characters and equipment is awesome and the whole thing looks the business."

Microsoft's *Midtown Madness 2* (*GamesMaster* 87%, *PC Zone* 84%) delighted racing fans with its stylised cities and carefully crafted carnage. The high-profile console conversion *Metal Gear Solid* (*GamesMaster* 90%, *PC Zone* 82%) rounded off a solid month for computer gamers.

Of course, there was hardly time to digest this gaming feast, thanks to what was to come in 2001 – Microsoft and Nintendo were to enter their respective hardware into the next-generation console fray, after all. The Game Boy Advance was set to revolutionise handheld gaming, but Korean manufacturer GamePark had also just announced its competing GP32 handheld. What's more, we had the returns of *Gran Turismo*, *Pokémon*, *Banjo-Kazooie*, *Daytona USA*, *Sonic* and more to look forward to. Get ready to relive it all starting from next month!

[Game Boy Color] *Donkey Kong Country* was an impressive achievement on the last viable 8-bit system.

CHARTS

DECEMBER 2000

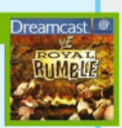
NINTENDO 64

1. Pokémon Snap (Nintendo)
2. Perfect Dark (Nintendo)
3. Pokémon Stadium (Nintendo)
4. Mario Party 2 (Nintendo)
5. International Superstar Soccer 2000 (Konami)

PLAYSTATION

1. TOCA World Touring Cars (Codemasters)
2. Tenchu 2: Birth Of The Assassins (Activision)
3. Sydney 2000 (Eidos)
4. X-Men Mutant Academy (Activision)
5. Parasite Eve II (Squaresoft)

DREAMCAST

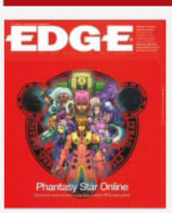


1. WWF Royal Rumble (THQ)
2. Who Wants To Be A Millionaire? (Eidos)
3. Virtua Tennis (Sega)
4. Hidden And Dangerous (Take 2)
5. Power Stone 2 (Eidos)

MUSIC

1. Can We Fix It? (Bob The Builder)
2. What Makes A Man (Westlife)
3. Stan (Eminem)
4. Never Had A Dream Come True (S Club 7)
5. Who Let The Dogs Out? (Baha Men)

THIS MONTH IN...



Edge

Yuji Naka is in the hot seat this month, chatting about *Phantasy Star Online*. "At one point in the interview, Naka-san points at the cover of *Edge* issue 90 and picks out the GameCube as the one machine he'd like to develop on," the magazine notes. That's an odd thing to do when the Dreamcast is supposed to be your priority.

Official PlayStation Magazine

Promoting *Alex Ferguson's Player Manager 2001*, the Manchester United manager is interviewed this month, but will he take the England manager job? "I'm retiring from football in two years," he answers. Alex Ferguson added seven Premier League titles to his previous six after this interview, and retired in 2013.

Official PlayStation 2 Magazine

With a new console comes a new magazine, so welcome to the world, *Official PlayStation 2 Magazine*! This debut issue included a five-page Q&A with Konami's Hideo Kojima. Unusually, this was a clean break from the existing *Official PlayStation Magazine*, and the two would run side by side for over three years.

3D Dotty

WHEN COPYING ONE GAME SIMPLY ISN'T GOOD ENOUGH

» BBC MICRO » BLUE RIBBON » 1987

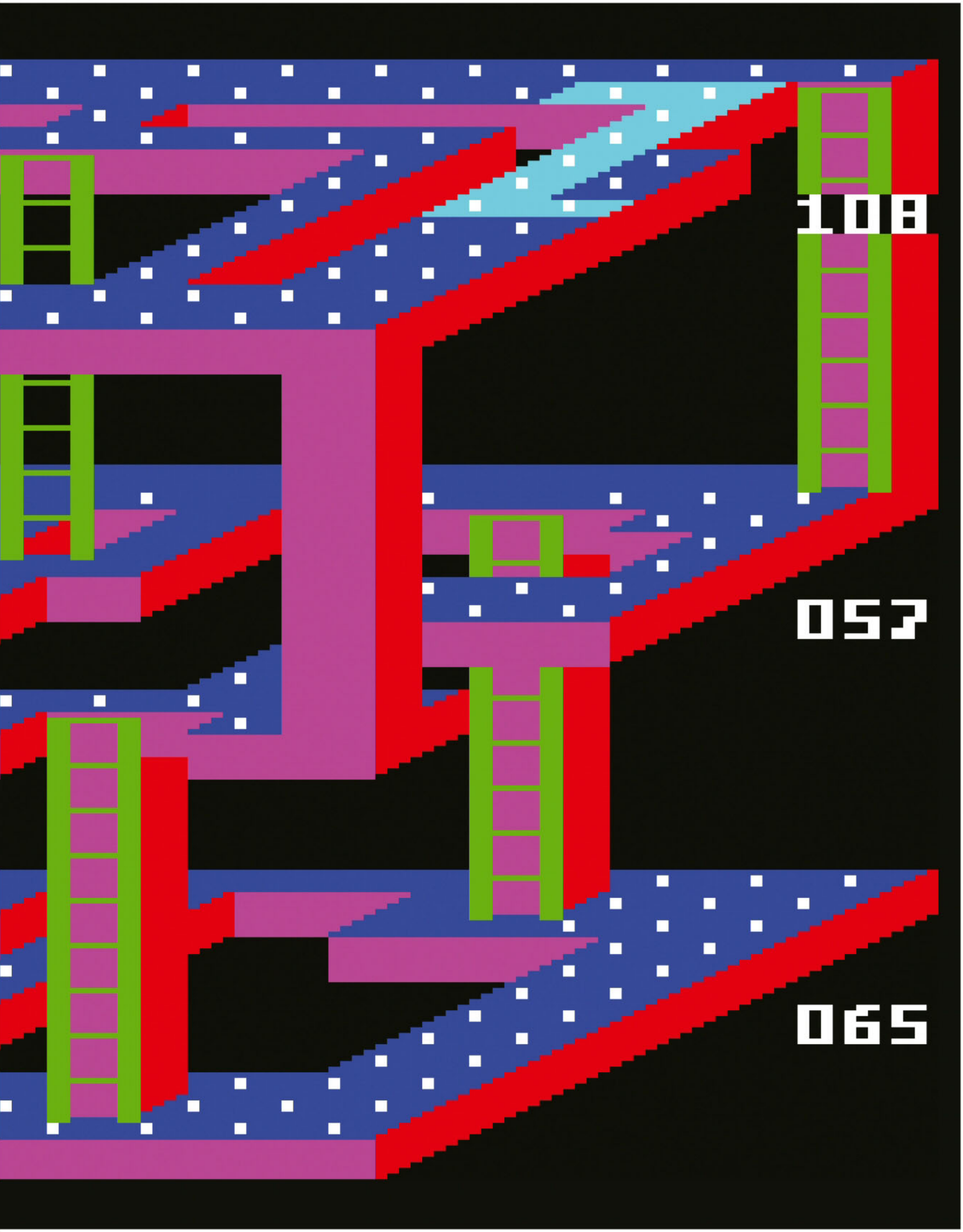
I was always jealous of my friend Gregory Nielson at school. It wasn't because he excelled at sports, or that he had the coolest *Star Wars* toys (although he did have some very good ones). No, my childish jealously of him stemmed from one simple fact: he had a BBC Micro and I didn't.

Most of my gaming experiences on the BBC Micro stemmed from either playing titles at Gregory's house, or attending afternoon sessions at school. I got to play numerous games this way and it reinforced my belief that the BBC Micro has some of the best arcade clones out of all the 8-bit systems.

3D Dotty is one of my favourite examples as it sums up everything I love about arcade games: it's fast, it has responsive controls and it contains that special 'one-more-go' factor that always used to keep me hooked on the likes of *After Burner* and *Double Dragon*. The BBC Micro had loads of examples like this, so I always had pangs of jealousy whenever I got to play on Gregory's.

Essentially *3D Dotty* is a cross between *Pac-Man* and *Crystal Castles*, with each stage being typically spread across three tiers. Ladders can be used to move between these tiers and to also avoid the snake-like enemies that chase you around each level. If you come into contact with them they drain you of energy, which also doubles as a score multiplier upon completing a stage. It's a neat system and you'll often struggle to finish with a high energy bar because the game is so tough and those snakes are so persistent. As with *Pac-Man* you have to clear the dots found on each stage, but the isometric setting means that some of these are hidden and are easily forgotten about if you don't pay attention.

3D Dotty isn't the easiest game in the world but it is a lot of fun to play with the kind of nippy, responsive controls and hectic action that reminds me of all the games I used to play at Quay Amusements as a youngster.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057
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THE MAKING OF
CONTRA III: THE ALIEN WARS & CONTRA: HARD CORPS

CONTRA
THE 16-BIT WARS

NO MATTER WHICH SIDE OF THE 16-BIT CONSOLE WAR YOU WERE ON, YOU COULD COUNT ON KONAMI TO PROVIDE ONE OF THE BEST RUN-AND-GUN EXPERIENCES ON YOUR CONSOLE. NICK THORPE SPEAKS TO NOBUYA NAKAZATO TO FIND OUT HOW THEY WERE CRAFTED...

Back in the Eighties, Konami was the champion of the run-and-gun world. You might not have played *Contra* in the arcade, and you might not have even known it by its original name, instead discovering it as *Gryzor* or *Probotector*. However, anyone that did take on the game knew that it was great and that it was so difficult that you felt like it had given you a good kicking after every game. An arcade sequel, titled *Super Contra,* arrived shortly after the original, followed by a Game Boy spin-off titled *Operation C*. Konami then made a major decision: the third core *Contra* game would appear on the SNES.

The directorial reins for *Contra III: The Alien Wars* were handed to Nobuya Nakazato, who had previously directed the NES lightgun game *Laser Invasion*. Nakazato hadn't worked on any of the previous *Contra* games or the SNES, but he had an appreciation for the legacy of the series and the limitations that hardware had imposed on previous home versions. "The SNES itself was a relatively easy piece of hardware to work with," says Nakazato. "That fact, plus getting the teams that developed games like *Gradius III* and *Ganbare Goemon* to share what they had learned, allowed for a smooth development."

Having previously worked on the NES, Nakazato found the increased capability of Nintendo's new console liberating. "The NES could only display four palettes of four colours

» [SNES] The European versions of both games used robots in order to avoid controversy.

» [Mega Drive] *Contra: Hard Corps* sets the tone early with this gigantic enemy.

simultaneously. So if a game used two palettes for player characters, like *Contra* did, that only left you two palettes for the background and all enemies," explains the director, who also contributed graphics to the game. "The SNES, on the other hand, allowed for 16 palettes of 16 colours. This meant we could do a lot more visually. We were able to incorporate unique colour combinations that accentuated the distinct looks of the game's variety of enemies."

Another thing was that hardware back then had tight restrictions on how many sprites you could display at once," Nakazato reveals to us. "If you exceeded this, you had to make whatever sprites were most important flicker to prevent them from not appearing at all." This technique had been instrumental in making the NES version of *Contra* work – notable examples include the second boss, which used a large number of sprites to convey waving arms. "Compared to the NES, the SNES could display twice as many sprites at a time. This allowed us to considerably reduce the sprite flicker you got when firing a lot of bullets."

Of course, one of the key graphical features of the SNES was the Mode 7 scaling/rotation function. "I ran various tests for Mode 7 content in the run-up to planning the project. As I looked over the results, I came up with ideas for how to apply them. Konami had also started releasing arcade games, such as *A-Jax*, with rotation features, so I looked at those as well," explains Nakazato. One of these arcade games, *Chequered Flag*, was a top-down racing game which drew the circuit as a large rotating background. The new *Contra* game revived the top-down stages that featured in *Super Contra*, but gave the player full freedom of movement by using the same style of background rotation as used in *Chequered Flag*. This allowed for the stages to be designed as mazes, rather than straightforward assault courses.

Although Mode 7 was only used in two stages, it felt like a natural addition to the game design that made for an impressive use of the unique capabilities of the SNES. But what was truly impressive was something that had never been done before on the SNES – during the boss fight in the second stage, both the ground and the boss rotate. Displaying two layers ▶

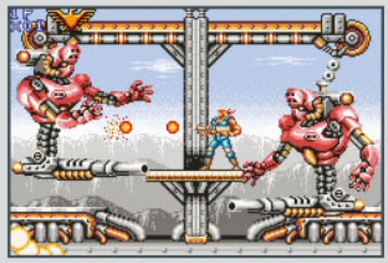
"COMPARED TO THE NES, THE SNES COULD DISPLAY TWICE AS MANY SPRITES"

Nobuya Nakazato

» [SNES] In many cases, the environment can be as deadly as the enemies hunting you down.

PORTABLE WARS

The handheld adaptations of Contra III that turned the bus into a battlefield



» [Game Boy Advance] Despite its best efforts, the GBA port of *Contra III* is markedly inferior to the SNES original.

Converting a high-quality, hardware-pushing SNES game to the monochrome Game Boy was always going to be a tough task, but Factor 5 did an admirable job with 1994's *Contra: The Alien Wars* (*Probotector 2* in Europe). Five stages survived the conversion to the handheld platform, with the jet bike stage failing to make the cut, and everything has been simplified a bit. The regular stages are shortened and the top-down stages no longer rotate. Additionally, it's strictly a single-player experience. It's no substitute for the SNES game, but is a very good run-and-gun game judged by the standards of the Game Boy. If you have a Super Game Boy, the visuals gain a little colour and there are enhancements to the soundtrack.

In 2002, a second handheld port of *Contra III: The Alien Wars* came to the Game Boy Advance as *Contra Advance: The Alien Wars EX* (or *Contra: Hard Spirits* in Japan). This version is largely a straight adaptation of the SNES game, however with the top-view stages removed. To replace them, the Train and Forest Base stages were brought over from *Contra: Hard Corps*. The control system has been compromised somewhat due to the Game Boy Advance's lack of X and Y buttons, as the smart bombs have been removed and you can only hold one weapon. The conversion isn't too well-regarded due to a somewhat dodgy engine with poor collision detection and modified enemy behaviour, as well as the other changes and omissions. If you have the choice between the two versions, get the SNES original.

CONTRA

AWESOME ARSENAL

Every character in Hard Corps has a unique arsenal – here's the lowdown on each

RAY POWARD

VULCAN LASER

■ It's a more powerful version of the standard-issue *Contra* weapon – straight rapid fire, with a slightly short range.

CRASH

■ This fires off slower, but more highly powered explosive rounds with a very short range, which explode upon impact or hitting the range limit.

SPREAD

■ An excellent five-way shot, one of the most useful weapons in *Contra*, and one of the best weapons in gaming as a whole. Few enemies escape it.

HOMING

■ Tiny missiles that chase your foes until they hit and explode on something. Great for when you need to concentrate on movement over aiming.

SHEENA ETRANZI

GENOCIDE VULCAN

■ An extra powerful version of the primary weapon, with the standard narrow range and standard rate of fire.

SHOWER CRASH

■ Powerful explosives which fire in a curving arc, and thus have a shorter range than most weapons when fired forward.

BREAK LASER

■ A laser which has the power to penetrate entire waves of enemies, making it good for taking down massed hordes.

AX LASER

■ Kind of like the Spread, the laser fans out into a wide set of five narrow beams, before homing straight in on the nearest enemy target.

BRAD FANG

BEAST SHOOTER

■ An extraordinarily powerful rapid-fire weapon, where the shots fan out into a narrow cone shape.

POWER PUNCH

■ The closest thing to a melee attack in the game – its range is short, but the attack has unrivalled power.

FLAME THROWER

■ A powerful but short-range weapon that will rotate through a full 360 degrees as you turn around.

PSYCHIC BLASTER

■ A chargeable, twisting beam weapon which gains power the longer you hold the button before firing.

BROWNY

VICTORY LASER

■ It's another straight shooting weapon, but this one is practically as tall as the diminutive Browny itself.

GEMINI SCATTER

■ A machine gun-style weapon which fires boomerang bullets – they'll shoot out to a medium range before returning.

ELECTRO-MAGNETIC YO-YO

■ This can be fired in any direction, but will home in on enemy targets when the fire button is held down.

SHIELD CHASER

■ A circular shield protects Browny as long as the button is held, before being launched in the direction of enemies.

of rotation was theoretically impossible on the SNES. How was it achieved? "Actually, the ground isn't Mode 7," reveals Nakazato. "It's just a grey background with things like the road paint and cracks displayed as sprites on top of it." That sounds equally impossible, until we're let in on the trick. "The SNES had no sprite rotation feature, so we created animation patterns for 32 degrees of rotation, and by synchronizing these to the player's input, we created the illusion of two layers of rotation." Of course, this was one of many boss fights in the game and interestingly, it isn't Nakazato's favourite. "The inspiration for those ideas came from all sorts of things – films, novels, museum exhibits..." he tells us. "My personal favourite is the final boss, whose attack pattern changes according to a roulette."

As much attention was paid to the soundtrack as to the visual aspect of the game. "I asked the sound team for a heavy-hitting sort of sound like you find in Hollywood movies," the director recalls. The SNES hardware allowed for sampled sounds that brought this ideal to life, with pounding drum beats in the opening stage and orchestral sounds for moments of high tension. The music could even be dynamic in certain situations. "In particular, for the boss rush at the end of the game, we paid a lot of attention to making it more immersive by having the music change seamlessly according to what was going on in the game," says Nakazato, again revisiting a favourite part of the game.

» [SNES] *Contra III*'s first level has you continuing the fight in a gigantic tank. Watch out, it's surprisingly fragile.

"WE'D ALREADY RELEASED THE SNES GAME, SO WE DIDN'T WANT IT TO LOOK INFERIOR TO IT"

Nobya Nakazato

IN THE KNOW

» **PUBLISHER:** KONAMI
» **DEVELOPER:** KONAMI
» **RELEASED:** 1992 (SNES), 1994 (MEGA DRIVE)
» **GENRE:** Run-and-gun

DEVELOPER HIGHLIGHTS

CONTRA
SYSTEM: ARCADE
YEAR: 1987

ROCKET KNIGHT ADVENTURES
SYSTEM: MEGA DRIVE
YEAR: 1993

VANDAL HEARTS
SYSTEM: PLAYSTATION, SATURN
YEAR: 1996

The press jumped on *Contra III: The Alien Wars* as soon as it was released in Japan in February 1992, under the title *Contra Spirits*. *CVG* awarded the game 91%, with Tim Boone saying, "If I was one of Nintendo's rivals I'd poop my pants if I saw this." Frank O'Connor was impressed with the way that Mode 7 graphics had been implemented in the game design, noting that, "the use of scaling and rotation in *Contra* isn't just a gimmick, it's an intrinsic part of the gameplay". *Mean Machines* gave it an incredible 95% at review. Richard Leadbetter was particularly impressed with the game's audio, praising the "atmospheric scores that almost rival *ActRaiser* in their brilliance", while Julian Rignall commented that, "It's so good it puts most of the coin-ops I've played to shame!"

Before the game made it to Europe, it had to undergo a slew of localisation changes. "When the NES versions of *Contra* were being developed there was greater sensitivity in Europe, mainly in Germany, towards depictions of violence in videogames, more so than today," notes Nakazato. "In light of this, for the PAL NES versions we changed all characters with guns to robots. The SNES game simply continued this." As well as these graphical changes, the name of the game was changed to *Super Probotector: Alien Rebels*, following on from the NES game. The changes barely dampened press enthusiasm – in a retrospective review in 1993, *Super Play Gold* awarded *Super Probotector* 90% and described it as, "A loud, brash, gratuitously violent over-the-top thing that tops any obvious rivals – on more or less any system."

"Nowadays, gaming culture has matured, and games for older audiences are rated accordingly, so we use the same characters worldwide," explains Nakazato. With the exception of the Wii Virtual Console release, subsequent rereleases have restored the *Contra* branding for European players – the Game Boy Advance, Wii U, 3DS and Nintendo Classic Mini: SNES versions all use the North American name and graphics.

» [Mega Drive] This mid-boss won't show up in every run, due to the non-linear nature of *Contra: Hard Corps*.

At the time of *Contra III: The Alien Wars*, Konami hadn't released any Mega Drive games. As with many third-party developers, the company had been restricted from developing for other platforms by its contractual agreement with Nintendo. Once it was able to develop for other consoles Konami backed the PC Engine, but soon had to devote resources to the Mega Drive due to the machine's international success. Nakazato's next directorial job was *Rocket Knight Adventures* for the Mega Drive, which meant that by the time his team began work on *Contra: Hard Corps*, it had excellent experience with Sega's hardware.

"We'd already released the SNES game, so we didn't want it to look inferior to it," Nakazato recalls. This was easier said than achieved – the Mega Drive is two years older than Nintendo's machine, and lacked the custom hardware that set the SNES apart. In most ways, it was harder to work with for Nakazato and the team. "Compared to the SNES, the Mega Drive had tighter graphical restrictions, such as the number of colours you could use simultaneously. On the other hand, it excelled at processing sprites quickly." Despite the challenges involved in working with the older hardware, the *Contra* team carried on undeterred. "Even though we had less colours to work with, we wanted the game to look good overall, so we put a lot of work into giving the presentation some pizzazz with things like the effects," Nakazato explains. "To take ▶

CONTRA

» [Mega Drive] What would be worse than having to escape an enemy compound? Doing it with fire chasing you.

» [Mega Drive] This impressive virtual reality mini-boss can transform into a variety of tricky adversaries.

advantage of [the fast sprite processing], we focused on researching animation techniques for large characters made up of multiple parts."

The results could be seen as soon as the game starts. What initially seems to be standard *Contra* fare soon gives way to the appearance of a multi-legged walker, an enormous robot which sets the city ablaze and uses rotation effects, and memorably a fantastically animated robot that chases you along a winding motorway as it runs towards the screen. That's all just in the first two stages, and isn't even nearly everything. It's no surprise that when we ask Nakazato about his favourite technical achievement with *Contra: Hard Corps*, he jumps straight to, "The large, unique, colourful bosses, which we created through a combination of parallax scrolling and the multiple joints technique that I just mentioned."

The sound of *Contra: Hard Corps* benefited from an approach tailored to the host platform just as well as the graphics did. "Back then, Konami had a separate department that handled sound-related development. Even when it came to modifying an engine for different platforms, the R&D team in that department created versatile tools for that purpose," Nakazato reveals. The Mega Drive wasn't capable of sample usage on the same scale as the SNES, with its sound chip better suited to producing raw, almost aggressively synthesised music. As a result

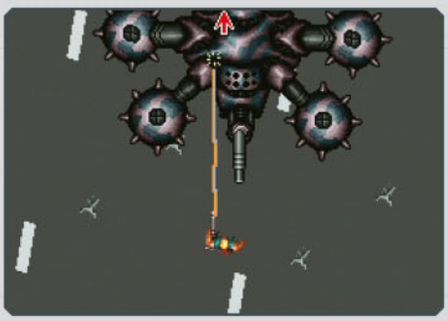
» [Mega Drive] Minor enemies in both *Contra III* and *Hard Corps* are more likely to outnumber you than outwit you.

of this, the *Hard Corps* team went for a more electronic soundtrack, mixing driving rock sounds with some deliberately alien sounds to tie into the theme of the game.

While the graphics and sound pushed the Mega Drive, the real revolution in *Contra: Hard Corps* came from how it was designed. "*Contra III* was developed with the idea that it would have enough content to hold up to multiple playthroughs. With *Hard Corps*, I basically kept this principle but added even more content to the game," explains Nakazato. "That said, I figured that if it took too long to complete the game, players might not want to do so repeatedly, so I kept the length of the game the same, but made it broader."

EPIC ENCOUNTERS

Both Contra III and Hard Corps feature some amazing bosses – these are the most memorable…



STAGE 2

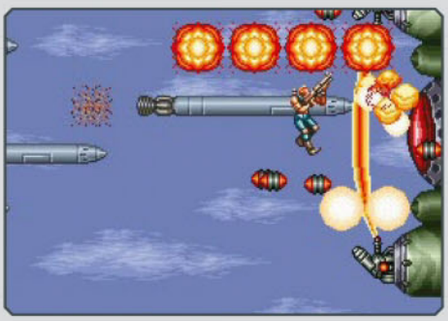
CONTRA III: THE ALIEN WARS

■ This multi-part robot can be taken down in stages – each of its weapons can be destroyed as well as the target. It begins to spin faster as more damage is dealt, and eventually launches itself into the air before trying to crash down on top of the player.

STAGE 3

CONTRA III: THE ALIEN WARS

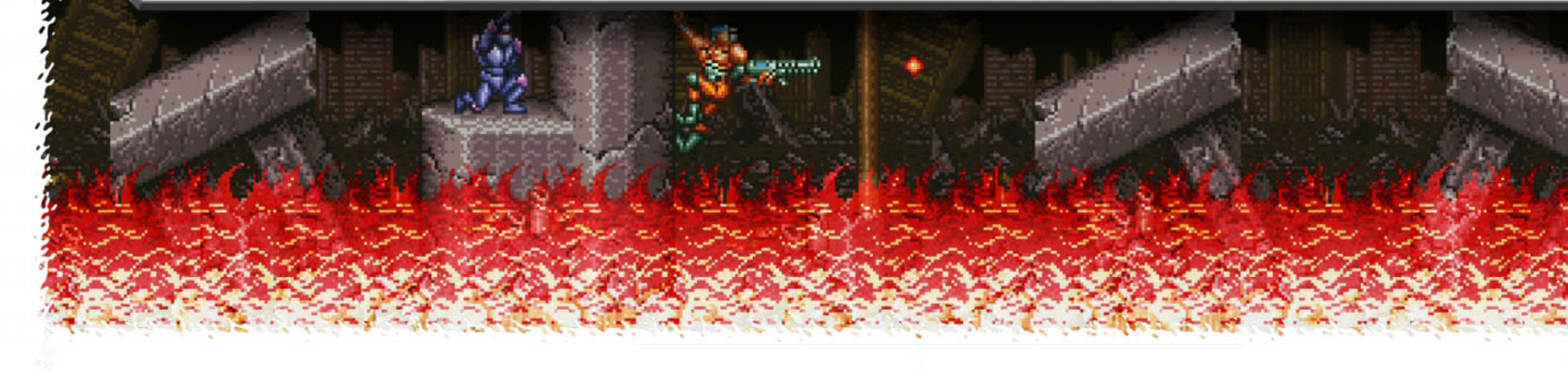
■ This Terminator-esque robot will stop at nothing to kill you, literally breaking through the wall to get at you. It attacks with ocular beams, fire breath and a spread of time bombs. You'll need to shoot this one in the head to see it off.



STAGE 4

CONTRA III: THE ALIEN WARS

■ This gigantic airship is shielded, so you'll need to dodge a barrage of bombs while you take out the two barrier generators. Once you've done that, you just need to destroy it – easier said than done as you jump between missiles.

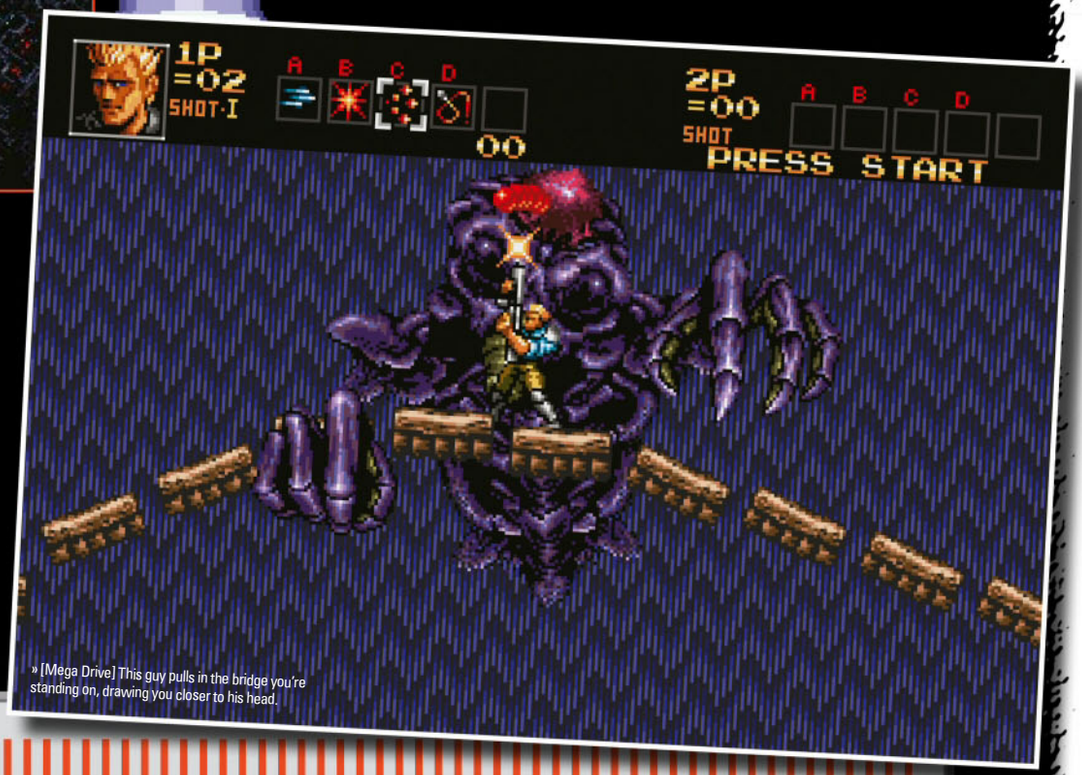


» [SNES] The use of Mode 7 rotation allowed for mazes, revolutionising *Contra III*'s top-down stages.

"MY GOAL WAS TO MAKE A GAME THAT PLAYERS WOULDN'T GET TIRED OF"

Nobuya Nakazato

The challenge of creating a game with more content but maintaining the same length per session gave us another interesting development – the most story-heavy *Contra* to date. While the short dialogue sequences and pre-mission briefings are nothing compared to the cutscenes of today, they were certainly out of the ordinary for *Contra*. "This came about purely as a result of prioritising making a fun action game. It wasn't that I was out to make a story-driven game," explains Nakazato. "My goal was to make a game that players wouldn't get tired of even if they played it over and over. So to help give them incentive to do so, I gave the game a



» [Mega Drive] This guy pulls in the bridge you're standing on, drawing you closer to his head.

STAGE 2 (CHASE)

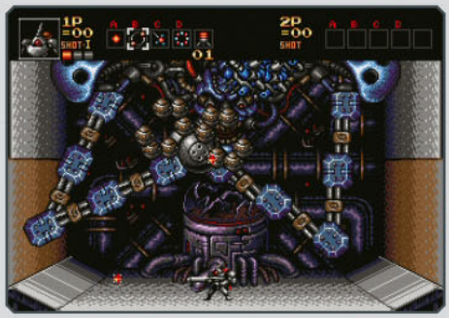
CONTRA: HARD CORPS

■ Going after Deadeye Joe will land you in a sticky situation – a highway pursuit with a gigantic robot, which swings spiked balls at you from its arms and launches bombs across the road. Attack it when it's level with your character.

STAGE 2 (LABORATORY)

CONTRA: HARD CORPS

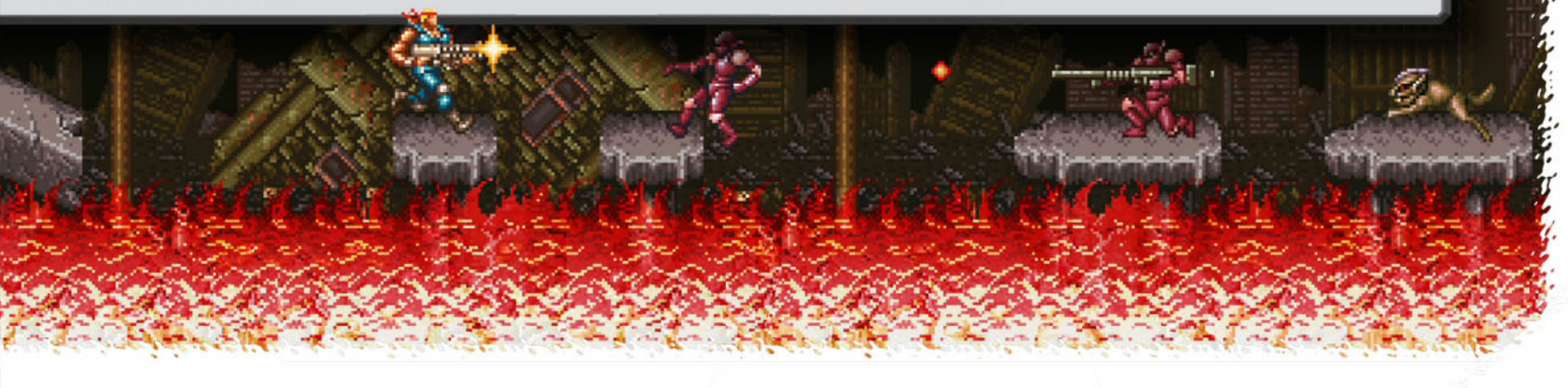
■ This gigantic assembly line robot has gone crazy and now builds contraptions designed to crush you. You'll need to shoot it in the head to get rid of it, but it is only vulnerable while it's building something.



STAGE 6 (OCEAN)

CONTRA: HARD CORPS

■ After defeating three mini-boss robots, they transform into one giant enemy with various attack forms, much like *Gunstar Heroes*' Seven Force. Luckily there's no specific weak point to hit here, so blast away.



CONTRA

» [SNES] This massive airship is a constant nuisance during the jet bike stage, thanks to its varied attacks.

" I WANTED TO GIVE PLAYERS THE ABILITY TO HAVE FUN GOING THROUGH THE GAME MULTIPLE TIMES"

Nobuya Nakazato

▶ branching story." Although you'll only play six stages in any session, the game has 11 in total, with your path determined by your responses to the story unfolding in the game.

That wasn't the only choice that players had to make – for the first time ever, a selection of characters was offered. "Once again, this was because I wanted to give players the ability to have fun going through the game multiple times with different characters," Nakazato reveals to us. "It was also a test to see if fans would accept characters that were different from the macho military types of previous entries in the series." *Hard Corps*' cast of characters was certainly different, as the traditional *Contra* cast was replaced with a new set of four heroes. Ray Poward was a standard military man in the traditional *Contra* style, and Sheena Etranzi served as his female counterpart. Brad Fang was a more outlandish character design, as a genetically engineered cyborg werewolf, and the tiny robot Browny was the oddball of the bunch. For the first time ever, each of these characters offered players a different experience – each power-up icon gave a unique weapon depending on your choice of character.

» [Mega Drive] Brad is the best character for speedruns, thanks to a weapon glitch.

Contra: Hard Corps was released in North America in August 1994, before landing in Japan in September and in Europe (once again as *Probotector*) in November. Critical reception was stellar once again, with *GamesMaster*'s Tim Tucker awarding the game 93% and declaring "it's everything you could conceivably need from a game." In *Mean Machines Sega*, the game was rated at 94% with Paul Bufton cautioning readers that "the difficulty setting may frustrate a great number of people, but all good things come to those who wait." *CVG*'s Rik Skews felt similarly enamoured, noting that "more than any other shoot-'em-up I've played *Probotector* delivers immense satisfaction when you complete a level," with his colleague Mark Patterson giving the game a 92% score.

Interestingly, the punishing difficulty level was less of a factor in the Japanese version of the game. Instead of experiencing one-hit kills, Japanese players were given a short life bar that made for a slightly easier game. We have to ask why this feature was removed for the export versions, but Nakazato quickly corrects us. "Actually, the reverse is true – the energy bar was added to the Japanese version," he explains. It seems odd that the intended design was for the West and adjusted for Japan, but there's a commercial reason behind it. "At the time, Japanese gamers were mainly into 'thinking' games, such as RPGs and strategy games. Games that demand quick reflexes, like action games and shooting games, tended to be somewhat less popular."

Unfortunately, *Contra: Hard Corps* isn't the most accessible game in the world due to its high price. You can expect to pay at least £70 for the North American release or the PAL *Probotector* version, and the Japanese release fetches considerably more. What's behind the scarcity of the game in its home territory? "As I mentioned, the genre itself wasn't as big in Japan as in the West," we're told by Nakazato. "There was that,

CONTRA III: THE ALIEN WARS 101

■ *Contra III: The Alien Wars* is a one or two-player run-and-gun game in which you're tasked with fending off an alien invasion by blowing up every alien in sight. The game alternates between side-scrolling and top-down shooting sections.

CONTRA HARD CORPS 101

■ *Contra: Hard Corps* is a one or two-player run-and-gun game in which you're tasked with stopping a rebel general's plot by blowing up every enemy in sight. Depending on the choices you make during stages, the plot can branch in four different directions.

» [Mega Drive] Even mid-bosses get the multi-sprite joint treatment, which is the game's signature visual effect.

plus I do recall that with its print, we did take into account the installed base of the Mega Drive."

Nobuya Nakazato and the *Contra* teams managed to deliver two incredible run-and-gun games that not only represent the pinnacle of the *Contra* series, but are arguably the defining examples of the genre on their respective platforms. This is an achievement which shouldn't be underestimated – after all, the 16-bit years were a time when publishers still had platform loyalties and consoles were wildly different in terms of their architecture. But which is the better game? That question has been argued by series aficionados and console loyalists over the years, but no consensus has been reached. So if Nakazato were to take one of them to a desert island, would he choose *Contra III* or *Contra: Hard Corps*? "That sure is a tough question… but by means of going back to the roots, I'd choose neither and bring the NES *Contra* with me," is his diplomatic response.

It looks like the question of which 16-bit *Contra* is superior is destined to go on forever – SNES fanatics will always point to the Mode 7 stages and amazing soundtrack, while the Mega Drive defence force will always point to the increased challenge and crazy bosses that don't quite have a SNES equivalent. But the truth is that they're both incredibly fine run-and-gun games, and if you haven't got the experience to compare the two, it's high time you corrected that. We'll even let you in on a little secret – you don't have to pick a favourite. So what are you waiting for? ✱

Thanks to John Szczepaniak and Kosuke Iwakura for making this article possible.

ART ATTACK

Paul Mann on creating the artwork for Mondo's Contra III vinyl release

How did you become an artist?

My interest in art originated at a young age from my father, who was also an artist and photographer. I can remember him with an easel painting landscapes in oil paints. One day, when in first grade, I showed him some drawings I had done and he was amazed. From that point on, my parents gave me much encouragement. I always knew that art is what I would do for a living. It was just something I was born to do.

Did you have any prior knowledge of the game?

I had no knowledge of the game before I worked on the piece. I had to do some research. I also had help from several people who had grown up playing it. Once I began to find out more about the game it intrigued me and I was eager to start the project.

Where did you get inspiration?

I drew inspiration from a love of Illustration artwork that was done during the Sixties. My work emulates that style and design. Mondo also likes that style and that's why they contacted me to do the *Contra III* art. I knew I wanted my art to have the same energy that existed in the movie posters that I had grown up with, which involved tons of action, colour and excitement.

Did you listen to the soundtrack to get a feel for the game's tone?

While doing my research I listened to the soundtrack before I started my art in order to get a feel for the game. I knew my art had to have the same high energy and impact as the soundtrack did. I really liked the rhythm and the beat, which gave the game a high-paced motion.

» This early sketch shows the player one character in the front, the two are switched around in the final version.

How did you recreate the look of the main characters?

I would look at how they moved, how they were dressed and their mode of attack. I also researched the aliens, the backgrounds and the weapons. My challenge was to create this in a realistic style. For the main characters, I used my nephew as a model who had the right look and physique that was needed. I photographed him in many different action poses to get that realistic look. I first had to show Mondo sketches of the direction I wanted to go. After they approved that, I did full-colour comps. Then I moved to the final artwork that was painted in acrylic paints. I worked on this project for about a month, that's including research and approvals. The actual artwork took about four days.

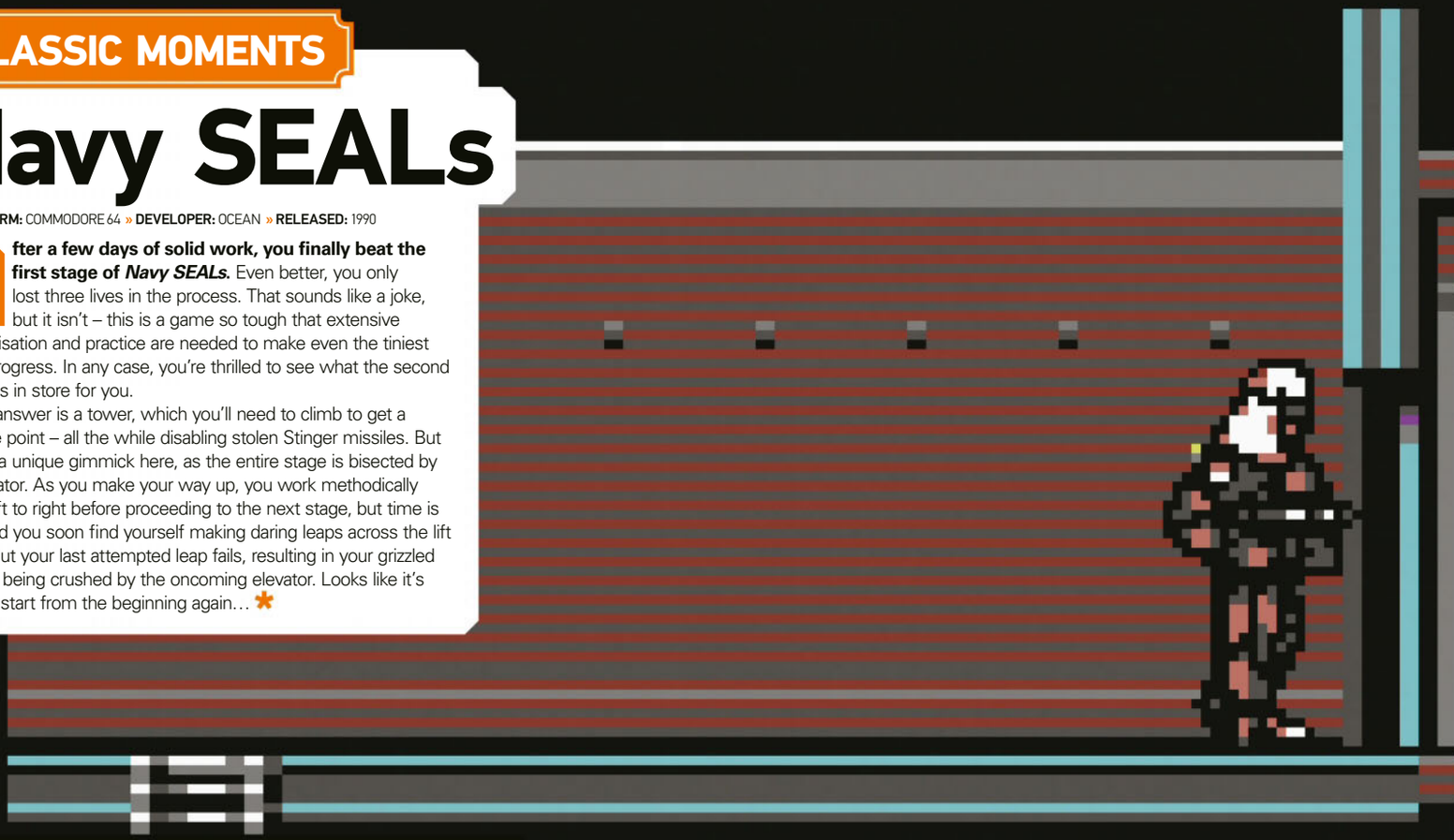
CLASSIC MOMENTS

Navy SEALs

» **PLATFORM:** COMMODORE 64 » **DEVELOPER:** OCEAN » **RELEASED:** 1990

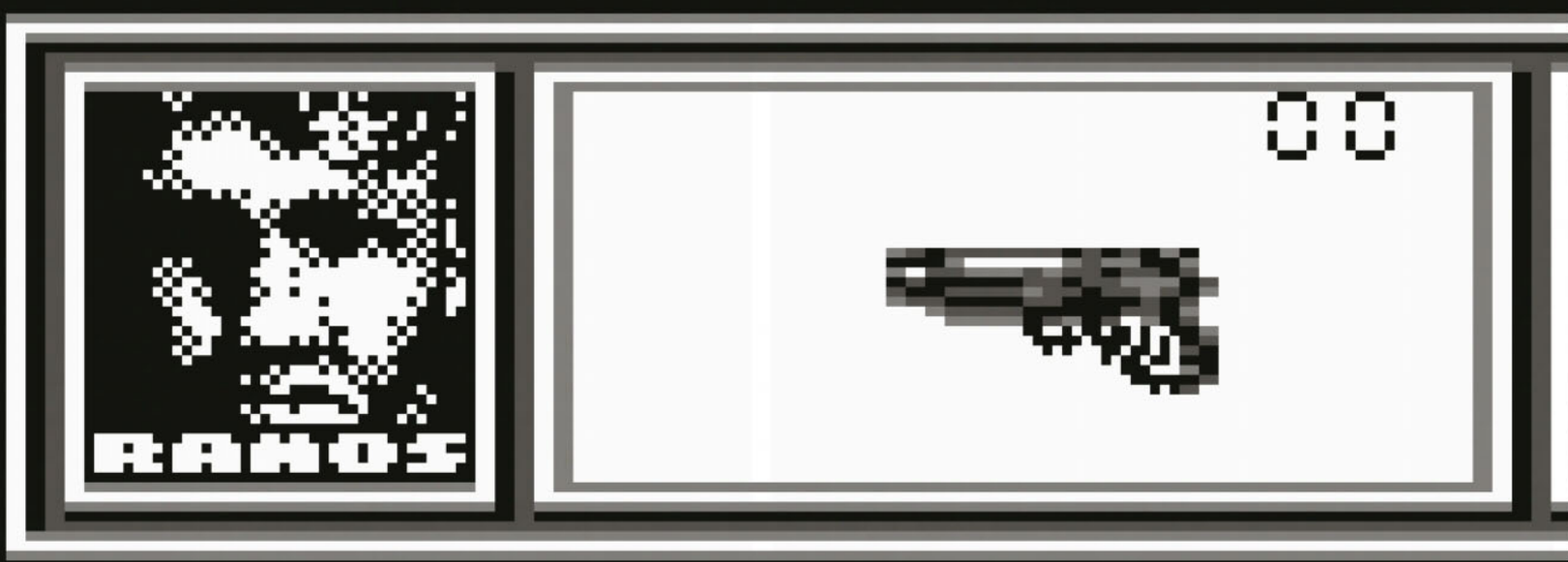
After a few days of solid work, you finally beat the first stage of *Navy SEALs*. Even better, you only lost three lives in the process. That sounds like a joke, but it isn't – this is a game so tough that extensive memorisation and practice are needed to make even the tiniest bit of progress. In any case, you're thrilled to see what the second level has in store for you.

The answer is a tower, which you'll need to climb to get a vantage point – all the while disabling stolen Stinger missiles. But there's a unique gimmick here, as the entire stage is bisected by an elevator. As you make your way up, you work methodically from left to right before proceeding to the next stage, but time is tight and you soon find yourself making daring leaps across the lift shaft. But your last attempted leap fails, resulting in your grizzled veteran being crushed by the oncoming elevator. Looks like it's time to start from the beginning again…



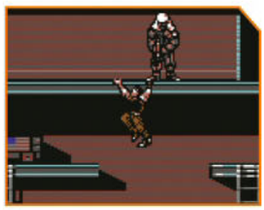
BIO

Ocean developed a strong reputation in the late Eighties for developing film tie-ins, even if the films themselves weren't always winners. By 1990, *Navy SEALs* was typical of the company's output – a polished and attractive game, based on the ill-received film starring Charlie Sheen and Michael Biehn. *Navy SEALs* also happens to be an incredibly tough challenge, even by the standards of Eighties run-and-gun games. The game was released on 1 November 1990, initially appearing on the Commodore 64, Amstrad CPC Plus and Amstrad GX4000. 16-bit computer versions followed, as well as a handheld version for Nintendo's Game Boy.



MORE CLASSIC NAVY SEALS MOMENTS

Under The Over



Athleticism is a key trait required by the Navy SEALs – sometimes, you need to dodge a terrorist by taking an unorthodox route. By hanging underneath and climbing hand over hand, it's possible to get your hardened soldier into a much better position to kill the terrorist, without getting the good guy shot in the process.

Bullet Time

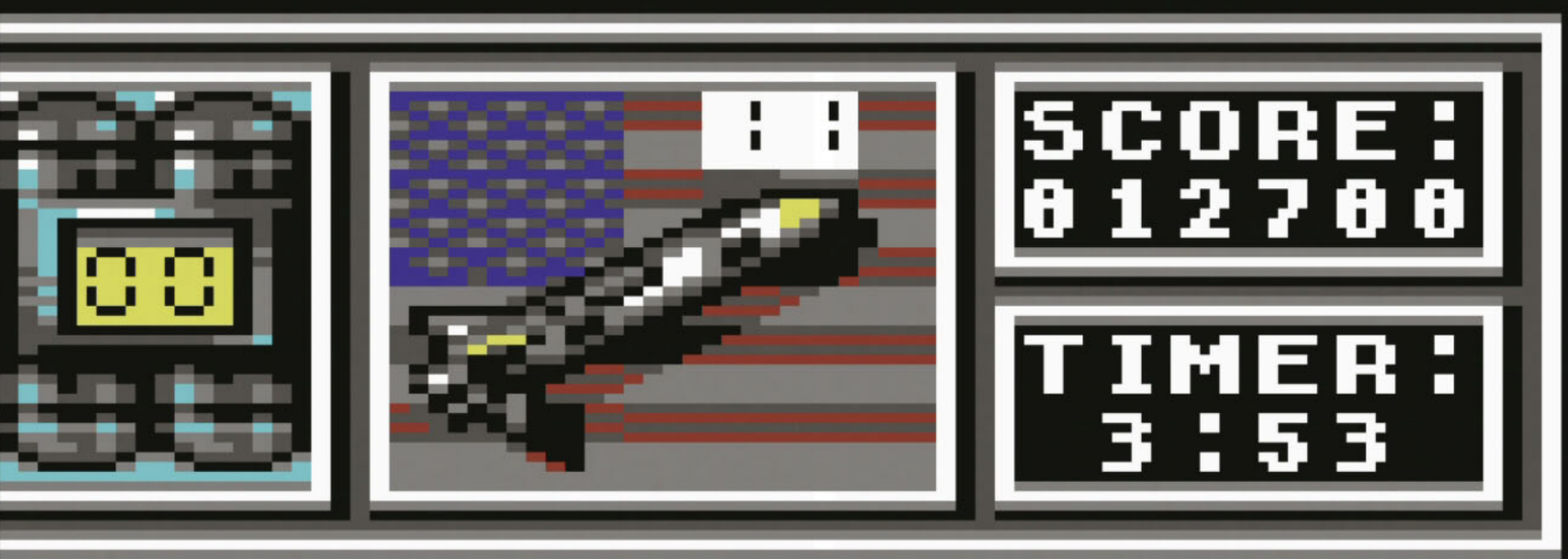
Dodging a bullet is a near-impossible task in real life, and the developers of *Navy SEALs* decided that they were going to go for realism here. All it takes is a crouch, but enemies appear so suddenly that you'll be thanking your deity of choice every time a piece of enemy fire sails over your head.

Nick Of Time

The brutality of *Navy SEALs* extends to all aspects of the game – it's not just hard to stay alive, it's hard to find every bomb within the time limit. They're spread across every level, and there's no guide to help you find them, so when you complete a level with two seconds to spare you'll be on top of the world.

Burning Man

Being able to pick up extra weapons is always fun, and *Navy SEALs* does allow you this pleasure. While the missile launcher is probably more effective, we're quite partial to the flamethrower – there's something about watching someone die in flames, probably screaming, that appeals to our darker side.



FROST BYTE

During the mid-Eighties, UK software houses were still releasing innovative games. Mikro-Gen and the man behind Everyone's A Wally conspired for this inventive effort...

Founded in 1981 by Mike Meek, Berkshire-based Mikro-Gen was one of a number of early software houses that struggled to weather the storm of a competitive market. Big-budget licences, low-price rivals and – most notably in Mikro-Gen's case – ill-advised hardware add-ons, all contributed to the downfall of the company in the late Eighties. But along the way there were some great games, many of them devised by Mikro-Gen's impressive cadre of programmers, such as Chris Hinsley. "I bumped into a chap called Paul Denial, who was a sales rep for Mikro-Gen," he begins, "and he was desperate for content for them to release." Having already coded a half-dozen games, these were eagerly snapped up. A subsequent job offer from Mike Meek tempted him away from university, whereupon he created Mikro-Gen's first big hit, the arcade-style platformer *Automania*.

After two more adventures of the poor downtrodden Wally Week, Chris handed over those reins to fresh recruit, David Perry, while he focused on new projects. "We had wanted to create a character that could be used in several games," he explains. "Yet I thought Wally had run its course, and had lost interest." With Mikro-Gen beginning to mire itself in the Plus hardware, Chris focused on a new game. "I was looking for the next idea to follow on from *Everyone's A Wally*, and specifically looking into mechanisms for controlling a character, and having more interesting character motions." The origins of *Frost Byte* began to take shape, and from an influence

» [ZX Spectrum] As with *Everyone's A Wally*, Chris didn't worry about avoiding the attribute issues on the Speccy.

» [Amstrad] Entering the third level and there's more icy travails in store for Hickey.

IN THE KNOW

» PUBLISHER: Mikro-Gen

» DEVELOPER: Chris Hinsley

» RELEASED: 1986 (8-bit) 1988 (16-bit)

» PLATFORM: Platform Puzzle

> **"The whole idea of it being in a frosty environment was because the graphics looked cool"**
> Chris Hinsley

you might expect, and one you might not. "So, I had this idea of trying to get some slinky-type object to work, and started playing around with a simple character that was like a liquorice allsort, but bendy," Chris remembers. From here the further manipulative elements of having this form bulge before expanding into a jump and wiggling around obstacles grew. "I found this added quite an interesting dynamic to help the character avoid the game's hazardous objects." However, *Frost Byte*'s gameplay was not only driven by its lead character but also Chris's reaction to his previous game. "With *Everyone's A Wally* we went much further, more puzzles to solve, more locations and characters and actions to trigger with different locations," he explains. *Everyone's A Wally*'s complexity was praised by many, yet mild criticisms surfaced from some quarters. Despite receiving a Crash Smash in issue 14 of the Spectrum magazine, one reviewer noted, "Each character, having its own task to complete, does make the game somewhat more difficult," and indeed it was a sizeable task that often threatened to overwhelm the player, especially early on. "You couldn't just pick up and play *Everyone's A Wally*," admits Chris, "so I wanted to try and return to the more spontaneous type of game where you can get into it immediately and there's not loads of adventuring to do over a mass of screens." *Frost Byte* would revisit a simpler era – games like *Manic Miner* in particular. "The puzzles themselves were not object-based – more about managing to jump onto a platform at the time and working that out."

Frost Byte's storyline, like many of the era, was a late addition, although its theme was set early in development. Why, we asks Chris, the chilly setting? "The whole idea of it being in a frosty environment was because the graphics looked cool," he laughs, "and the

» *Frost Byte*'s designer and programmer, Chris Hinsley.

» [ZX Spectrum] A more rustic feel for the final level – the end is in sight for Hickey

Frozen Treats

More videogames with a chilly setting

Winter Games

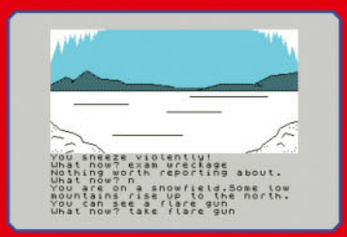
1985

■ Epyx is rightly worshipped on the C64 for its sports simulations, and many cite 1985's *Winter Games* as the best of its output. The events are predictable, but they're polished and huge fun.

Thin Ice

1986

■ This Intellivision game was codesigned by the late Keith Robinson. The player controls a crafty penguin who's determined to land his fellow penguins into the water by skating around them.


You sneeze violently!
What now? scan wreckage
Nothing worth reporting about.
What now? n
You are on a snowfield.Some low
mountains rise up to the north.
You can see a flare gun
What now? take flare gun

Winter Wonderland

1987

■ This snow-bound game begins with a plane crash and contains many evocative images of the eponymous location. Mind the thin ice!

Icewind Dale

1998

■ An *Infinity Engine* stopgap between *Baldur's Gate* adventures, this RPG still has a legion of fans thanks to its no-nonsense dungeoneering and the ability to create your party from scratch.

Conversion Capers

Amiga

■ Floating brains, a jester on a scooter and flying saucers are just some of the strange additions to 16-bit *Frost Byte*. Released by Tynesoft in 1988, it was coded by Julian Jameson with graphics by Dave Armstrong. Much of the gameplay and level design is the same, but the sprites are massive, lending the game an odd, squashed look.

Amstrad CPC

■ Also coded by Chris Hinsley, the Amstrad version of *Frost Byte* inevitably added better sound effects and some catchy music, but is otherwise a faithful copy of the Spectrum original. The sound and colourful sprites probably just edit it over the other 8-bit *Frost Byte* versions, and it's our favourite.

Atari ST

■ Likely developed alongside the Amiga version of *Frost Byte* given their similarities and shared coder/artist. Despite the huge sprites, the game is a touch more forgiving in places, helped by a slower pace. It's hard to imagine the game getting much of an audience back then, but it's still worth checking out for the splendid music.

Commodore 64

■ Nick Jones did an excellent job of porting *Frost Byte* to the C64. Crunchy sound effects, colourful graphics and the same tricky challenges make this another fantastic iteration of the Mikro-Gen game. Plus the remaining Kreezer's energetic wriggle in the corner of the screen is a charming final touch.

blurb on the back of the cassette was written in about an hour, just before the cassette was due to go off to the distributor." With visions of Chris slaving over a typewriter, brainstorming a range of plots for his game duly shattered, we note that the snowbound graphics weren't in the game to a huge degree anyway, especially in the ZX Spectrum version. "There was partly a reality to it as well – you wanted to get some variety into the graphics otherwise it got a bit samey," says Chris. "The changing graphics also reflected the player's progress through the game, in that you were trying to escape this icy wilderness, to something a bit more pleasant."

So in terms of its story, what did Chris knock up in his tea break? *Frost Byte* is set on the planet Cosmica, home of the bendy and athletic Kreezers, but all is not well. Monsters have invaded and imprisoned our little heroes deep within the ice caverns. Fortunately one brave Kreezer has managed to pick the lock to his cage; now Hickey must venture deeper into the caves and rescue his mates. Along the way lay dozens of monsters and traps, one touch from either resulting in instant death. Fortunately help is at hand: useful stashes of bullets can be picked up and, once loaded into a weapon, can be used to eliminate some enemies. There's also a set of three sweets that each bestow a helpful power to Hickey. Offering extra bounce, faster movement or protection from high falls, these are vital if the Kreezers are to be liberated. On the flipside, Hickey has a stamina bar in the form of his twang meter. Should he run out of twang, he's powerless, and the level is lost. The monsters throughout *Frost Byte* are also evocative of Matthew Smith's classic. "It was all programmer art back then," reveals Chris, "and it basically was whatever comes to mind while in the sprite editor." Dismembered heads, cackling demons and fast-moving insectoids all stand in Hickey's way. "Back then, hiring an artist was unheard of. If you couldn't knock it up in the sprite editor, it didn't happen!"

As with all his games, Chris used the ZX Spectrum as lead platform, although not for a reason that fans of the Sinclair computer would necessarily be delighted about. "I always used the Spectrum as it was the least capable machine in terms of hardware specification," he reveals. "If the game could be successfully written to run on the Speccy, then you knew it would run happily on the other machines of the time, the Amstrad CPC and Commodore 64." While Chris converted the game himself to the former, the latter was handled by his colleague, Nick Jones. "I wasn't a huge fan of *Frost Byte*," admits Nick, "but I liked the concept of the slinky-style spring. I used the same level data as the Spectrum/Amstrad versions, so I didn't have to think too much about the level designs or difficulty. You can blame Chris for that!" While Nick proclaims his Commodore 64 port as merely "okay", it was with the game's sound and music where he contributed more fully, having been pigeon-holed as the go-to sound guy at Mikro-Gen. "I was classically trained on the piano, but was hired to program games, so I'm not sure they knew at the time. But they had a very early little synth keyboard in the office, and I played

» [ZX Spectrum] Getting close to Hickey's home and the end of the game.

DEVELOPER HIGHLIGHTS

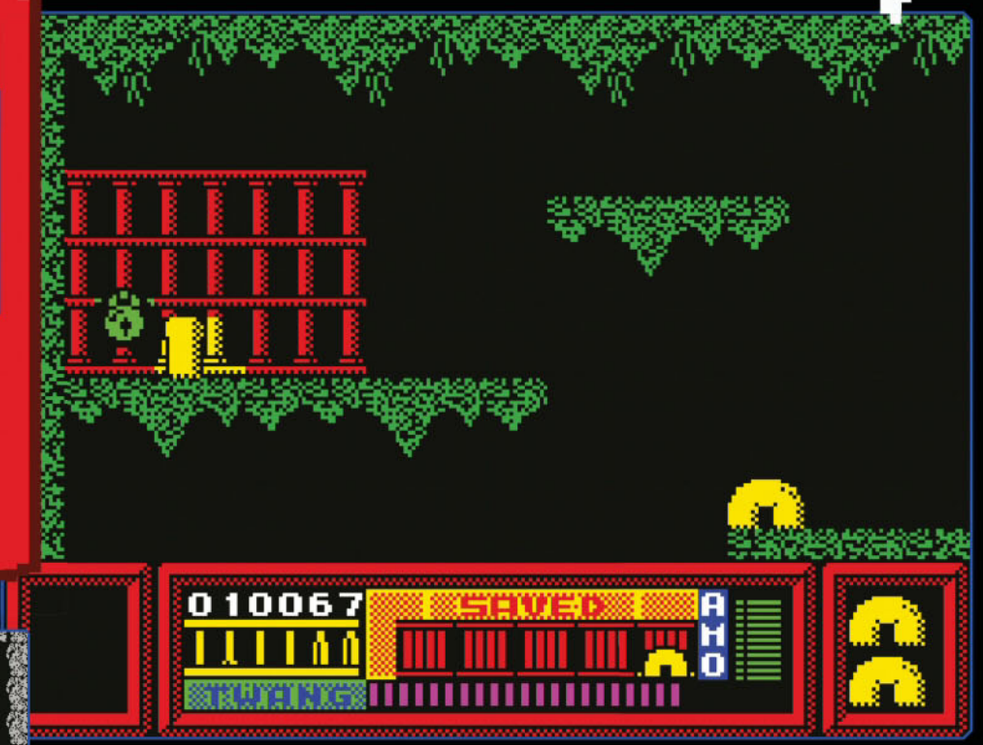
PYJAMARAMA
SYSTEM: ZX Spectrum, Commodore 64
YEAR: 1984

EVERYONE'S A WALLY
SYSTEM: Various
YEAR: 1985

EQUINOX (PICTURED)
SYSTEM: ZX Spectrum, Amstrad CPC
YEAR: 1986

ZX Spectrum

■ This was the lead platform for *Frost Byte*, so it runs well as you'd imagine. While the graphics are nice and detailed, they don't really do a fantastic job of capturing the game's frosty setting. It all moves along at a great pace, however, making for a tricky, but highly entertaining platforming adventure.



» [ZX Spectrum] One of Hickey's chums is just a few bounces away from freedom.

» [C64] The vital red sweet that gives Hickey a boost, enabling him to move much faster.

"Hiring an artist was unheard of. If you couldn't knock it up in a sprite editor, it didn't happen!"
Chris Hinsley

that, even teaching the other guys how to play some Jean-Michel Jarre."

The other guys that Nick refers to was actually an extremely impressive pool of talent that had found itself at Mikro-Gen in the mid-Eighties. Chris, Nick, Raffaele Cecco and David Perry often sat within the same walls, working on games or "messing about" according to Chris, often both. "Like many other games, *Frost Byte* came about because we regularly used to challenge each other to come up with new ideas. We'd often give suggestions and critical comments about a new demo we'd come up with, usually with the aim of impressing the other members of the team." The febrile atmosphere came in useful with playtesting, although the resultant changes could be painful. "I've no idea how many times I had to change a line of code in the game, and then in order to guarantee that you could still play it to the end," says Chris. "I had to go all the way through to the end sequence once more. You couldn't just compile the code and make the change."

As with his Wally Week games, Chris tackled the Spectrum's notorious attribute clash head-on. "I thought it couldn't be solved – so I ignored it!" he laughs. One thing Chris didn't ignore was an ending, and a reward for the player's hard work and perseverance. "We always liked to have a strange ending to a game," he says of the diagonally flying sprites in *Frost Byte*'s final section. "As we wanted to provide some kind of reward at the end. Remember the fireworks display at the end of *Pyjamarama*? Or the fountain in the town square at the end of *Everyone's A Wally*?"

The press reception for *Frost Byte* was largely positive, despite journalists sometimes mistaking the game's tactical nuances for poor collision detection. "It wasn't actually poor detection," explains Chris. "The issue was that the character was thinner when he was standing upright, than when he was bending over. And some parts of the puzzles involved him getting into the correct stance to be able to fit in between obstacles. So the complaints were largely from people who didn't understand you can't fit a wide object through a thin gap!"

Frost Byte would prove to be Chris Hinsley's final 8-bit game, and his final game at Mikro-Gen. Stricken by the failure of its hardware add-on and hamstrung further by the increased costs for 16-bit development, the company would not last much longer into the following year (1987). "While I was doing *Frost Byte*, I knew, we knew, the end was coming," says Chris sadly. "When we were asked if we're going to leave, we'd all made the statement that we weren't going to leave any project unfinished, basically answering the question indirectly. We weren't going to leave them in the lurch, but we weren't going to hang around for long afterwards, either." It was a sad end for the popular software house but not, strangely, the end for *Frost Byte*. With Mikro-Gen falling by the wayside shortly after its release, an 8-bit rerelease on the MicroValue label came courtesy of Tynesoft, which presumably had acquired some of the IP. Even stranger, two years later, 16-bit versions appeared on the Amiga and Atari ST, coded by Julian Jameson of Tynesoft. They made little impact in their markets.

After Mikro-Gen, Chris went freelance, working on projects for companies such as Rainbird and Hewson. For him, *Frost Byte* was developed during a period of mixed emotions. "In the early days, working for Mikro-Gen was like being adopted by a family," he remembers, "and it was like that for some time before the rot began to creep in. It was a nuthouse. *Frost Byte* was just something simple I did as I knew I was going to quit at the end. But it was a nice game, nothing groundbreaking, but a pleasant hark back to a simpler time." ★

Hardware Heaven

EDITOR'S CHOICE
Alex Kidd In Miracle World

Sega's pre-*Sonic* mascot made his debut in this fantastic platform adventure. The monkey-like hero is memorable for running, jumping and punching his way through the kingdom of Radaxian, and occasionally hopping onto a motorbike or pedal-powered helicopter. This is one of the very best early Master System games and thanks to being built into many consoles, it's also the first Master System game that many players would have experienced. Just be warned that you'll probably need to track down a cartridge if you want to play it on the original Master System, as it was much more commonly built into the Master System II.

Master System fact

■ The Master System's expansion port is officially unused, but is functional and has been used in custom hardware projects such as FM sound expansion boards and import adaptors.

PROCESSOR: Z80 8-BIT CPU (3.58 MHZ)
RAM: 8KB MAIN MEMORY, 16KB GRAPHICS MEMORY
GRAPHICS: CUSTOM SEGA VDP, 256X192 DISPLAY, UP TO 32 COLOURS ON SCREEN (FROM 64 PALETTE), 64 SPRITES PER FRAME
AUDIO: SN76496 PSG SOUND CHIP, 3X SQUARE WAVE CHANNELS, 1X NOISE CHANNEL
MEDIA: ROM CARTRIDGE (UP TO 8 MEGABIT), SEGA CARD (UP TO 256 KILOBIT)

Master System

» **MANUFACTURER:** Sega » **YEAR:** 1986 » **COST:** £99.95 (launch), £35+ (today)

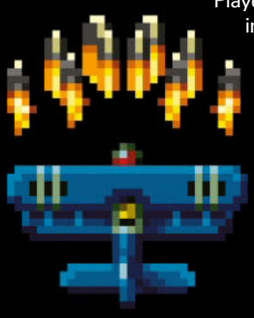
Much like Nintendo, Sega chose to redesign its flagship console for export markets in the mid-Eighties, resulting in the makeover of the Mark III into the Master System. The black casing and strange diagram on the front of the console showed Sega pursuing a high-tech image, while the presence of a pause button on the console itself was an odd design choice carried over from the Japanese design. The system featured slots for both cartridges and low-cost cards, but the latter format was very limited and quickly phased out. The two-button joypads initially featured screw-in joystick attachments, but these were also phased out. The Master System design was eventually used in Japan for a deluxe version of the Mark III, featuring a built-in FM sound unit not present in the export model.

In North America, the format never gained major traction due to the overwhelming popularity of the NES. However, European distributor Mastertronic and Brazilian distributor TecToy established the Master System as the dominant console in those regions. The original model is less common than the Master System II in these regions today, but it is considered a lot more desirable due to its support for composite AV and RGB SCART outputs.

Three decades ago Flying Shark zoomed into arcades and dropped a bomb on the competition. Martyn Carroll revisits the 2D shooter that scored a direct hit for developer Toaplan and repeated that success on home systems

Think Toaplan and the first game that surely springs to mind is *Zero Wing*, the Japanese developer's horizontally scrolling shooter. And that's almost certainly because of the 'All Your Base' memes of the early Noughties that was born from the ropey translation work seen in the game's European Mega Drive version. But if it wasn't for that curious meme you'd more likely associate Toaplan with its range of stand-out shooters – titles like *Twin Cobra*, *Truxton* and, arguably its crowning glory, *Flying Shark*.

Building on Toaplan's earlier titles, *Tiger Heli* and *Slap Fight*, and riffing heavily on Capcom's arcade perennial *1942*, *Flying Shark* was a war-themed shooter that looked great and played even better.



Players piloted a biplane over five stages, facing increasingly resolute enemy waves of air, ground and sea forces. To even up the frankly ridiculous odds you could upgrade the plane's guns from a feeble twin-shot up to an awesome 12-shot spread by collecting power-up tokens. These tokens were released by clearing a squadron of red planes than would zoom in and circle the screen – along the same lines, yellow squadrons would award you 1,000 points while white squadrons offered up a rare 1UP token.

You were also armed with a limited supply of smart bombs that would create a large blast radius, destroying multiple enemies and their shots. You began each stage with three bombs and more could be obtained by taking out certain ground targets. Bombs were best saved for the 'bosses' you encountered towards the end of stages, which ranged from an armoured vehicle to a whacking great warship. Unlike many shooters, you didn't have to beat the boss to continue as eventually you'd pass over them, so destroying them was mainly for the points bonus. Similarly, there was no 'end' to the game – it simply looped back to stage two, albeit with the difficulty level increased – so you could go again on the same credit and see how many points you could accrue.

Flying Shark ran on 68000 hardware and, as you'd expect, it utilised a vertically-mounted monitor which displayed a resolution of 320x240 pixels. However, the actual play area was 320x320 pixels, so the screen would also scroll horizontally dependant on the player's position. This sometimes resulted in unavoidable deaths ▶

Green Squadron
Red Squadron
Bomb Token
Tank
Flying Shark
Gunboat

Yellow Squadron

Destroyer

Power-up Token

PORTING PERFECTION

Andrew Parton on converting the game to the Commodore 64 for Telecomsoft

How did you land the job of converting *Flying Shark* to the C64?
After answering an ad in the local Swansea newspaper for games programmers, I met the boss, showed him my clones of *Boulder Dash* and *Arkanoid* on the C64 and was offered a job at Catalyst Coders. Catalyst produced arcade conversions for the likes of Activision and Firebird, and I was tasked with converting *Flying Shark*. There were a few of us crammed inside some grubby rooms above a shop in Neath, sharing the floor with a taxi office. We weren't very popular as our equipment kept interfering with their radios. Pretty soon, I decided to work from home.

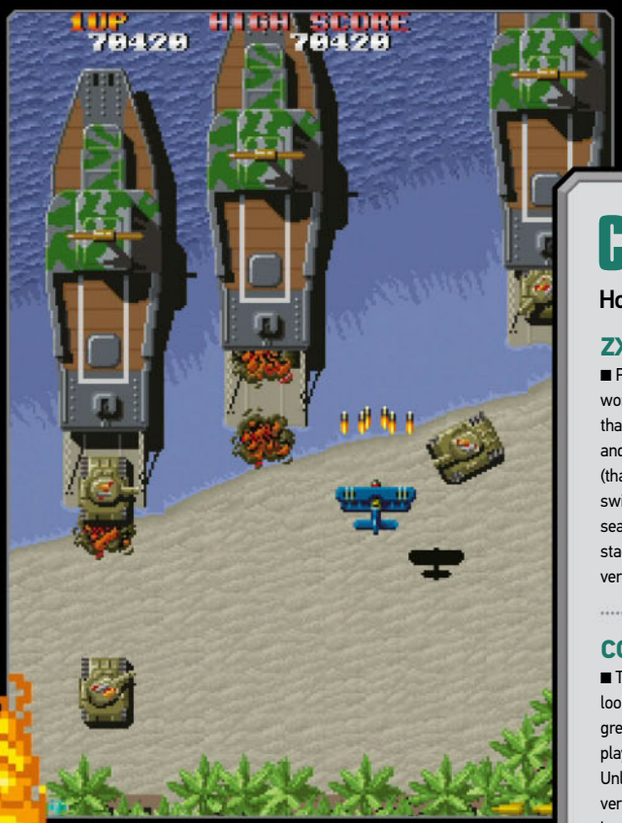
Did you have access to the coin-op machine during development?
At first no. We made excursions to Porthcawl amusement arcade and videotaped ourselves playing the arcade machine. Eventually, we were sent a machine of our own.

What did you think of the coin-op?
I loved it! Though I was more interested in working out how they did it. Once I'd worked that out the game lost its appeal a bit.

Can you recall how long the conversion took?
I was given three months, but it took four, including quite a few all-nighters towards the end. I remember feeling very important when Firebird sent a bike messenger from London to pick up my final master in the middle of the night. Technically it was quite a difficult game as there were a lot of sprites on the screen which required some very complex sprite multiplexing. Also the multidirectional, full-colour scrolling was quite a challenge.

Did you know that Taito later commissioned Software Creations to create a new C64 version for the US market?
I had no idea Software Creations created another version, and I ended up working for Software Creations! I'm actually not surprised. I think it needed a better approach, with a bigger art team, in fact a bigger team overall, not just me on my own in my bedroom. I can't say the game represents my proudest moment, but at least it got my career started.

The game scored 63% in *Zzap!64* where it was described as "frustratingly difficult". Do you think the criticism was fair?
Absolutely. I couldn't play the thing.



"TECHNICALLY IT WAS A DIFFICULT GAME AS THERE WERE A LOT OF SPRITES ON-SCREEN"

Andrew Parton

▶ as you'd scroll straight into enemy fire, but overall it was a welcome feature as it made the game feel less cramped and more expansive. Another nice touch was the detail in the destruction. On being hit, enemies rarely exploded and disappeared; instead, planes would catch fire before crashing into the ground, and tanks would continue to move with their turrets ablaze. The game was full of pleasing visual touches, such as the way your plane's wings dipped as you banked left and right.

Like most of Toaplan's early titles, publishing duties were handled by Taito. In the US Taito licensed the game to Romstar which retitled it *Sky Shark*, though nothing else was changed. In the UK the game was licensed to Electrocoin which retained the original name. Despite the war theme the game wasn't based on any real events and no obvious insignias were displayed, so it was easy to export around the world without altering anything. Unsurprisingly, the game's backstory was vague: something about the war almost being lost to the enemy and the allies sending in an unnamed pilot in a last ditch attempt to reclaim occupied bases. ▶

CONVERSION CAPERS

How the various home versions of Flying Shark shaped up

ZX SPECTRUM 1987

■ Probably the worst-looking version, thanks to its yellow and black playfield (that doesn't even switch to cyan on the sea stages). It also ends prematurely with no final, fifth stage. Of course, playability is king and thankfully this version plays really well. Good job, Graftgold.

AMSTRAD CPC 1987

■ This quick port of the Spectrum version (handled by Graftgold's Steve Turner) retains the winning gameplay while adding some extra colour. This makes it easier on the eye, and also easier to see enemies and their shots. The only downside is that it plays quite slowly.

COMMODORE 64 (EUROPE) 1987

■ The first C64 version looks good and sounds great (SID tunes play throughout). Unlike competing versions it also scrolls horizontally as well as vertically, just like the coin-op. Sadly, it's too damned difficult and dodging enemy shots is often impossible, spoiling a good game.

COMMODORE 64 (US) 1988

■ The alternative US version is superior – but not by much. It uses the full width of the screen, and the sprites are more detailed, but it too is spoilt by being much too difficult. Unlike the European version, it does feature the final boss – if by some miracle you get that far.

ATARI ST 1988

■ This 16-bit version may not resemble the coin-op too closely (the sprites are too chunky and some of the colour choices are... curious) but it plays like a good ol' blaster in its own right. A decent in-game soundtrack completes what is a winning release for the ST.

AMIGA 1989

■ To no one's surprise this is a lock-stock conversion of the ST version. There are no obvious Amiga embellishments, though some might say it does sound slightly better. The only noticeable addition is that Amiga owners can choose between 'easy' and 'hard' mode.

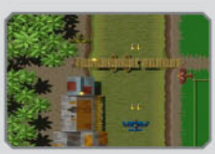
PC 1989

■ The PC release looks similar to the ST and Amiga versions (in VGA mode of course), but plays quite a bit worse. Scrolling is smooth but rather slow, and the whole thing doesn't really feel like *Flying Shark*. You could be forgiven for thinking that it's a random shareware shooter.

NES 1989

■ NES owners could have no real complaints with this version. It's really fast and the sprites hardly flicker, even when the screen is packed. Topping it off is Tim Follin's amazing in-game music which really showcases the master at work. A very accomplished conversion.

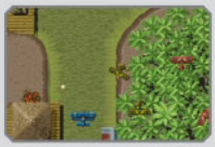
SHARP X68000 1991



■ The home of many classic coin-op conversions does not disappoint with its version of *Flying Shark*. Devotees of the original will notice a few details missing, and the screen is slightly too stretched, but overall this is a first-rate conversion from Kaneko that's a joy to play.

FM TOWNS 1993

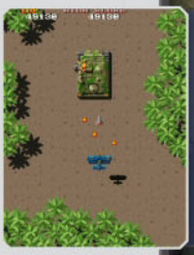
■ Arriving six years after the coin-op, this was late but so worth the wait. The X68000 version was close but this really is arcade perfect. In fact it's better, as it features a rearranged CD audio soundtrack (the game shipped on disc) as well as host of game-tweaking options.



BOSS RUSH

A rundown of every major adversary and how to beat them

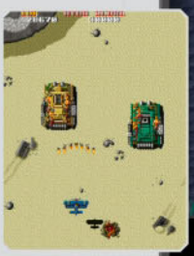
STAGE 1: JUNGLE



■ The first real challenge in the game is this armoured vehicle that moves forwards and backwards, firing a wide, slow-moving, three-shot spread. Smaller tanks support it.

HOW TO BEAT IT: It can be defeated easily with normal shots, but things get trickier when the support arrives, so it's best to soften it up with a bomb.

STAGE 2: DOCKS



■ You face an upgraded version of the first boss that fires a faster, seven-shot spread. Not only that, but a second, similar tank arrives on the screen shortly after the first.

HOW TO BEAT IT: You do not want to face two tanks at once, so even out the battlefield by destroying the first one with bombs as soon as it appears.

STAGE 3: ESTUARY

■ You pass over this massive, heavily-armoured warship before it starts to move back up the screen, so effectively you have to face it twice. It receives both air and ground support.

HOW TO BEAT IT: You must wipe out all of the gun turrets on the first pass, as it's more difficult to do so when it returns. You can only destroy the central tower on the second pass.

STAGE 4: RAILYARD

■ Similar to the second stage, only now the vehicles are on rails and they fire a fast flurry of shots that home in on your position. They can also sustain many more hits before blowing.

HOW TO BEAT IT: Once again, unleash bombs to quickly destroy the first vehicle as it becomes a nightmare when both are on screen. Grab extra bombs by shooting the static rail trucks.

STAGE 5: STRONGHOLD

■ After facing the third stage warship once more you encounter the final boss. It fires a volley of shots that are very difficult to dodge.

HOW TO BEAT IT: Weave as best as you can at the foot of the screen. Use your remaining bombs, but only when support squadrons arrive so you take those out too.

» [Arcade] You're gonna want to take down those smaller boats, or the screen is going to fill up with bullets.

"IT WAS PRETTY GOOD. BACK THEN IT WAS ALL FUN AND GAMES"

Martin Howarth

The game made an early appearance at Tokyo's AOU (Amusement Operators' Union) show in February 1987. UK magazine publisher EMAP sent Tim Rolf to the event and he reported back that the two most popular games at the show were both from Taito – *Rastan Saga* and *Flying Shark*. "Having had to wait ten minutes to get a go on *Rastan Saga*," he wrote in *Sinclair User*, "I had to wait a full 15 minutes to get near *Flying Shark*. It was worth it. If you like shoot-'em-ups then this has got to be the best around. It is difficult, but Taito has made it so awesomely playable that the difficulty is a real joy." Players who've tried to take on the latter stages with regular guns may dispute Tim's 'real joy' claim, but otherwise his positive reaction to the game was typical among critics.

The success of the coin-op and the strength of the Taito brand ensured that the home conversion rights were hotly contested. In Europe Telecomsoft won out and commissioned Catalyst Coders to develop the home computer versions. Catalyst produced the Commodore 64 version, but quality concerns led to Telecomsoft taking the Spectrum and Amstrad CPC versions off Catalyst and handing them over to Graftgold, who managed to turn around the conversions in a few short weeks. Catalyst was kept on to produce the ST and Amiga versions which were eventually released round 12 months after the 8-bit releases. Over in the US, Taito chose not to release Catalyst's C64 version and instead commissioned fellow UK developer Software Creations to create a new C64 version from scratch. Software Creations also developed the NES console version. A PC version was later released, and in the following years arcade-quality versions appeared on the Japanese X68000 and FM Towns systems.

Back in the arcades several titles capitalised on the success of *Flying Shark*. *Twin Cobra* ran on the exact same hardware and was essentially *Flying Shark* with helicopters, although it was actually a sequel to Toaplan's earlier hit *Tiger Heli*. In 1988 Taito released its own clone, *Fighting Hawk*, which is often listed as a follow-up to *Flying Shark* despite Toaplan having no obvious involvement. Toaplan did return to the *Flying Shark* theme with *Twin Hawk*, which introduced co-op play, but it was not a direct sequel. That overdue honour would go to *Fire Shark* which debuted in 1989 and is covered elsewhere in this feature.

As for Toaplan, it would continue to mastermind innovative shooters until it folded in 1994. Its final game, *Batsugun*, is considered to be the precursor to the 'bullet hell' type shooters which former Toaplan employees would go on to perfect at Cave. *Batsugun* also solved a small mystery as the game's background info revealed that one of the six playable characters, 55-year-old Rom Schneider, was the mysterious pilot of Flying Shark 30 years earlier! While this retcon creates a link between the two games they're quite different. *Flying Shark* is remembered as a classic from the era when 2D shooters still ruled the arcades, while *Batsugun* is seen as the beginning of the genre's maniacal, less accessible phase that followed. ★

CONVERTING 'SKY SHARK'

Martin Howarth coded the alternative US version for the C64

There was already a C64 version of *Flying Shark* by Catalyst Coders. Do you know why Taito commissioned Software Creations to produce a completely new version of the game?

To be honest, I didn't know at the time. The version we worked on was called *Sky Shark* and it was for the US market, whereas *Flying Shark* was for the UK. I saw screens of the other version some time later and just assumed somebody had hacked our version and changed it visually. I remember it not using the right side of the screen as I believe this was used for the score.

Did you have access to any useful resources that helped you while working on the conversion?

We did have the arcade version in-house. Software Creations founder Richard Kaye had a special suitcase made to house the arcade PCB with various outputs to allow it to connect to different screen types.

Were you a fan of the arcade version at all?

From what I remember, it was pretty good. Back then it was all fun and games anyway. Most of us didn't really see it as work.

How long did the conversion take, and what would you say was the most challenging aspect from a coding point of view?

Most games were written pretty quickly, somewhere between two and three months. Code wasn't written with the same review processes like it is today. The things I was trying to improve at the time were allowing more than eight hardware sprites on the screen at once (sprite multiplexing) and also allowing for masking of background graphics in the hardware sprites to allow things to appear in front and behind the same sprite.

Were you pleased with how your conversion turned out?

I did enjoy writing *Sky Shark* so hopefully this is reflected in the playability in the game.

White Squadron

1UP Token

Battleship

Cannon Fodder

BIN YOUR JOYPAD AND EMBRACE THE MOUSE

» AMIGA » 1993 » SENSIBLE SOFTWARE

It's easy to overlook how important a controller is to a game's overall design. *Super Mario 64* was built around the N64's unique controller, while it's an exercise in frustration to play *NiGHTS Into Dreams* without the Saturn 3D controller. In fact, just don't play Sonic Team's game if you don't own one. You'll thank me later.

The reason I mention this is because it's particularly important when playing Sensible Software's *Cannon Fodder*, as it feels like a completely different game if you play it without a mouse. It is, of course, important to realise that *Cannon Fodder* remains a highly enjoyable game even if you do play it with a joypad, but if I'm honest, I don't really feel it does Sensible Software's game justice.

Play it with the mouse and *Cannon Fodder* suddenly feels like a completely different experience, as it becomes far easier to move around the playing area, or even avoid enemy fire. The cursor that predominately controls your movement and is used to shoot down your diminutive foes feels like a living extension of you, effortlessly moving where you will it and constantly enabling you to get out of tight situations that might let you down when playing with a clunky joypad setup.

I eventually owned a copy of *Cannon Fodder* on the Mega Drive and while it was a solid port I often felt that I was occasionally fighting the control setup as much as I was fighting the game's many enemies. The level design was still excellent, and the cute soldiers were still hilarious when they went through their death throes, but it never quite *felt* right to me. I found a SNES Mouse in one of my cupboards the other day. Maybe I should give that version a whirl…

THE HISTORY OF AMST

Amstrad's second generation of PCs hit the headlines for the wrong reasons in 1989.

TRAD

For more than ten years, Amstrad produced dozens of computers from the CPC to the PCW and IBM PC compatibles. Founder Lord Sugar talks to David Crookes about that period, along with Roland Perry and Richard Chandler

Between 1987 and 1989, *Amstrad Action* ran an amusing comic strip called Sugarman. You could say it was the precursor to the fictional mutant villain of the same name which made an appearance a few years later in Marvel Comics' *Generation Next*, but you'd be lying. No, this one was based on Alan Michael Sugar and his determination to dominate the world with his computers. It touched upon themes as varied as his buyout of Sinclair and his failure to break into America.

The strip wasn't by no means essential reading, but it was proof that Alan Sugar – or Lord Sugar as he is now known, after being created a life peer in 2009 – was rather well known. After all, it was near-impossible to separate Amstrad from the man given that it bore his name (Alan Michael Sugar Trading). It was he who called the shots, made the decisions and drove the bargains which ensured the company was a success.

Born on 24 March 1947, Lord Sugar had become business-minded from a young age. He sold ginger beer to his classmates at school, woke early to work on a market stall and bagged various jobs as a teenager. He became familiar with hundreds of retailers across London as a salesman for companies such as Robuk Electrical, R Henson and Binatone. It put him in good stead for founding Amstrad in 1968.

Image © Retro Computer Museum

The CPC 664 was only on sale for six months. Amstrad decided to replace it with the 128K CPC 6128.

Initially, he rebadged products for sale but he soon began thinking of items he could make from scratch and sell for less than others. His breakthrough was producing dust covers for hi-fis, using a technique called injection moulding – enabling him to sell each unit for a few quid. Before long, Amstrad was also making amplifiers and tuners.

AMSTRAD

The CPC range was well-supported at the time, with popular games magazines like *Amstrad Action* and *Amstrad User*

But it was Lord Sugar's foray into producing all-in-one music centres that brought him success. He combined an amplifier with a tuner and tape deck into a single unit and made them look like they were separate. Powered by one plug and retailing for £199, it came with the bonus of needing little time to set up. Audiophiles hated it, but Lord Sugar wasn't bothered.

"There had been a falsehood in the early days of hi-fi and audio that the big Japanese brands had something very, very special about them," he tells us. "But actually there was nothing special about them. We just manufactured products and sold them at a price in relation to what they cost to build and not what people thought they were worth to sell."

Although Amstrad also made car, portable and clock radios, by 1982 Lord Sugar began looking for a new market to enter. He noted the successes of Sinclair, Commodore and Acorn in the home computer industry and spotted a problem he felt he could resolve. "If you owned one of their computers, you had to commandeer the television set in the home," he says. "You had to plug it in and use an RF modulator to tune it to a certain station on the television. Then you had a separate cassette box or something like that to load programs on. It was very, very messy."

Lord Sugar believed he could do for computers what he did for hi-fis. "My solution was very simple," he tells us. "You do it all-in-one. You go and buy a package which has its own screen and its own datacorder and you plug it in and away you go. No wires. That was the philosophy behind Amstrad. We wanted to make it easier." But Lord Sugar also realised that if he wanted to get a computer in the shops, it needed to be designed from scratch. There was no time to waste.

"The wisdom was that it would take about a year to develop a computer," says Roland Perry, a Cambridge graduate who was working for the component supplier and hardware design consultancy company, Ambit International. "So Amstrad handed the task to a couple of guys they had worked with in the past. Only these guys didn't really understand the enormity of the task and when they realised they were never going to deliver it, they did a runner."

Amstrad released an A4-sized portable Z80-based computer called the NC100 Notepad in 1992.

Alarmed, Bob Watkins, Amstrad's technical and manufacturing director, turned to Ambit and asked if the team could help rescue the computer. "They needed to find someone mad enough to think they could pick up the entrails and do something useful with it in three months," Roland laughs. "And that's what we did."

Lord Sugar inherently believed creating a computer was a straightforward process. "We were a consumer electronics company and there was kind of an air of mystique that people were trying to make about computers," he remembers. "My view was that they were just another piece of consumer electronics and there was no mystique about them. I felt if we applied our mass production philosophy to it, we would come up with a winning item."

To create that first computer, Amstrad studied the Commodore 64, BBC Micro and Spectrum, noting the good and bad bits of each one. They chose a Motorola 6502 microprocessor which had been used in the Apple IIe, Commodore PET, BBC Micro, Commodore 64 and others. But when Roland visited Locomotive Software, that quickly changed.

"We were running Locomotive from the back room of my little terraced house in Dorking and Roland brought a prototype computer with him," says

10 GAMES THAT DEFINED THE AMSTRAD RANGE

ROLAND IN TIME

■ There were eight Roland games in total for the Amstrad CPC, released between 1983 and 1985. "We had *Roland On The Ropes*, *Roland In The Caves*, Roland does this, Roland does that, I can't remember them all," says Lord Sugar. "The character would jump all over the place. We named him after Roland Perry."

GET DEXTER

■ Originally released for the CPC, this funny isometric graphic adventure was developed in France where the CPC was popular thanks to the efforts of Amstrad France boss Marion Vannier. Boasting superb graphics, animation and music it was packed with tiny flourishes, testing player skills to the limit.

GRYZOR

■ Or *Renegade*, if you wish, for either of these Ocean classics looked superb on the CPC thanks to the artistic skills of Mark K Jones. Packed with screens and with lots of weapons at your disposal it played like a dream. CPC owners blessed with 128k could also enjoy an enhanced version of it.

FANTASY WORLD DIZZY

■ This offering is proof that some games were ported from the Amstrad to the Spectrum, with the Oliver twins making the CPC their lead platform. It just so happens that *Fantastic World Dizzy* was also created when Amstrad owned the Spectrum and back when Dizzy was an unofficial 8-bit mascot of sorts in the United Kingdom.

BURNIN' RUBBER

■ This launch game shipped with every GX4000, 464 Plus and 6128 Plus and it instantly hinted at the power of the new machine. Made by Ocean and essentially an unofficial version of *WEC Le Mans*, it boasted superb sprite scaling and jaw-dropping graphics. It was included in the demo units sent out to shops.

> "THEY NEEDED TO FIND SOMEONE MAD ENOUGH TO THINK THEY COULD PICK UP THE ENTRAILS"
>
> Roland Perry

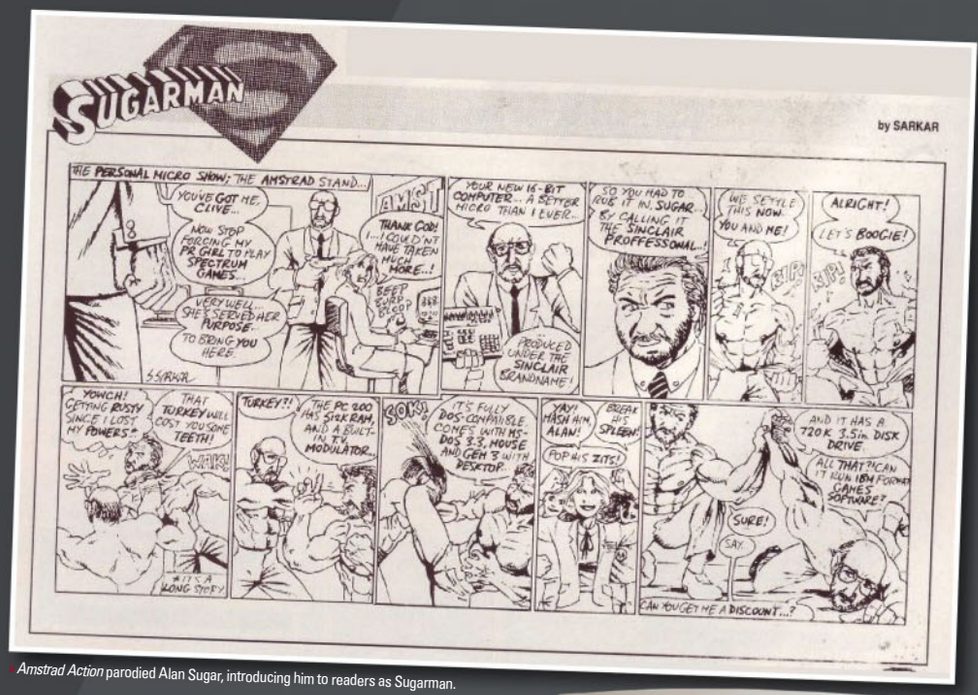
Locomotive Software cofounder Richard Clayton. "He wanted to know how long it might take us to port a copy of our BASIC interpreter and, since it turned out there wasn't really any existing code, write a simple operating system for it."

Richard told Roland it would take half a year. "The problem was that the system used a 6502 and our BASIC was for a Z80," Richard tells us. "If it was for a Z80 then we thought it would take four. So we called our friend and hardware designer Mark-Eric Jones [aka Mej] to come and have a look. He quickly pointed out that the circuit board wasn't going to work because some of the chips didn't have power and ground connected, and he suggested starting again on the hardware as well." It was at this point that Roland was convinced a move to a Z80 would be a wise choice.

Perry agreed to the switch and Locomotive worked towards a deadline of January 1984. "It was hard work and long days," says Richard. "But we hit our targets." They sought to make BASIC more logical, adding commands such as 'DRAW', 'INK' and 'FILL'. Mej suggested Amstrad slash the number of components within the machine and make use of gate arrays which allowed for a large number of discrete components to be squeezed on to a single chip, cutting costs. "It also made it harder for folk in the Far East to clone the machine should it become successful," says Richard.

Eventually a sellable computer emerged and, in April 1984, Amstrad unveiled its baby as the Amstrad CPC 464. "We'd created an all-rounder 8-bit machine that had the capability of doing whatever the other machines did," Lord Sugar tells us. The difference was that the 464 had a built-in tape deck, came with a monitor and was powered with a single plug. It also had 64K of memory (which Lord Sugar figured would matter to buyers comparing specs), 27 colours, three screen modes and support for up to two joysticks.

The computer retailed for £229 for the green screen version and £329 for colour. Users could get to grips with BASIC immediately or insert a tape and run a program. "But the problem initially was to get software writers to produce programs for it because they were writing millions of games for Sinclair," says Lord Sugar. "Getting those converted over to the Amstrad CPC 464 was, I guess, the biggest challenge we had at the time." To encourage development, Amstrad sent out prototypes to software houses but it also created its own division called Amsoft,which also worked


SUGARMAN
by SARKAR
THE PERSONAL MICRO SHOW: THE AMSTRAD STAND...
YOU'VE GOT ME, CLIVE...
NOW STOP FORCING MY PRGIRL TO PLAY SPECTRUM GAMES...
VERY WELL... SHE'S SERVED HER PURPOSE... TO BRING YOU HERE.
SARKAR
EEK!
THANK GOD! I...I COULDN'T HAVE TAKEN MUCH MORE...!
BEEP BURP BLOOP
YOUR NEW 16-BIT COMPUTER... A BETTER MICRO THAN I EVER...
PRODUCED UNDER THE SINCLAIR BRANDNAME!
SO YOU HAD TO RUB IT IN, SUGAR, BY CALLING IT THE SINCLAIR PROFFESSIONAL...!
WE SETTLE THIS NOW... YOU AND ME!
ALRIGHT! LET'S BOOGIE!
YOWCH! GETTING RUSTY SINCE I LOST MY POWERS...
THAT TURKEY WILL COST YOU SOME TEETH!
WAH!
IT'S A LONG STORY
TURKEY!?
THE PC 200 HAS 512K RAM, AND A BUILT-IN MODULATOR...
SO?...
IT'S FULLY DOS-COMPATIBLE COMES WITH MS-DOS 3.3, MOUSE AND GEM 3 WITH DESKTOP...
YAY! MASH HIM, ALAN!
POP HIS ZITS!
BELCH! SPLEEN!
AND IT HAS A 720K 3.5in DISK DRIVE
ALL THAT PC-AN IT RUN IBM FORMAT GAMES SOFTWARE?
SURE!
SAY...
CAN YOU GET ME A DISCOUNT...?

Amstrad Action parodied Alan Sugar, introducing him to readers as Sugarman.

In West Germany, Schneider was given permission to sell and market Amstrad products and it badged them with its own logo.

PREHISTORIK 2

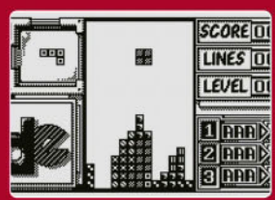
■ Amstrad only wanted the extra Plus features to be accessible to games released on cartridge but clever developers soon found a way around that. *Prehistorik 2* was among the disc and tape games taking advantage of the extended colour palette and graphical touches, although it suffered from slowdown.

BATMAN

■ The first *Batman* game ever developed made its way on the Amstrad PCW proving that the computer could indeed be interesting to gamers. There was no colour, other than green, in this 3D isometric action adventure, of course, and it sounded bloody awful but, holy Amstrad, it was very enjoyable to play.

SONIC THE HEDGEHOG

■ Yes, that Mega Drive favourite was available on the Amstrad Mega PC and it was completely indistinguishable from the original. But that's only because it was the original game, plugged into the Mega Drive port on the front of this 386 PC-console hybrid and played using the bundled controller.



BLOCKADE

■ This *Tetris* clone made its way on to the Amstrad Notepad, squeezing onto the computer's long, thin screen. Other games for the system included *Super Blockage* and *Trikade*. But other than that, the Notepad was really a machine for boring stuff like word processing and spreadsheets.

PRINCE OF PERSIA

■ Having established itself as a CPC classic, pushing the tech to near-16-bit levels, Jordan Mechner's platforming classic was bundled with the Amstrad PC5286. Aimed at gamers specifically, the computer came with a 14-inch VGA monitor displaying 256 colours from a palette of 250,000, as well as a joystick.

THE BUSINESS SIDE OF AMSTRAD

How the British business proved itself to be a major contender

» Producing an IBM-compatible PC in 1986 for less than £1,000 was perceived as being revolutionary.

"We took the PC market by storm," boasts Lord Sugar, of a venture that began in 1986 with the release of the 512K IBM-compatible PC1512. "Within 18 months, we had 25 per cent of the whole European market." It also had a PC that sold for just £499, seriously undercutting its rivals.

Motivated partly by a desire to ship its computers across the world and because it was being nagged to create an IBM-compatible computer, Amstrad began the process of creating its own PCs by getting engineers to crack an existing PC open.

"We found that the actual components inside those machines didn't warrant the £2,000 price that IBM wanted to sell them for. It was more like £399," Lord Sugar tells us. "So we didn't make our PCs cheaper than anyone else, we just sold them for a more reasonable price."

It worked wonders. By pricing according to the hardware's cost, Amstrad sold millions of units. "Sales exploded," Lord Sugar affirms. Even though it originally opted not to buy a licence for MS-DOS and decided to use Digital Research's DOS-Plus instead, that debut had more than enough power to run popular games such as *Monkey Island* and *Elite*. There was a joystick port on the keyboard, too.

Many more PCs followed, including the portable PPC range ("A computer for people who wanted to transport their machine from home to client and plug it in when they got there," says Roland Perry). But of most note for us were the PC5286 and Mega PC. The former was a 16MHz 286-based PC that had a 40MB hard drive and 1MB of on-board memory. Aimed specifically at gamers, it was priced at £1,050 and came with *Prince Of Persia*, *F-15 II* and *Links*.

The Mega PC, meanwhile, was made under a licence from Sega in 1993. Originally costing £999.99, and later reduced to £599, it included Mega Drive hardware and it had both a 32-bit Intel 80386SX CPU and a Motorola 68000. Despite a 40MB hard drive, a megabyte of memory, expandable to 16MB, and a controller was bundled – it didn't sell very well.

» Now a rare collector's item, the Mega PC could play UK, Japanese, US and unlicensed Mega Drive games.

But at least it didn't cause a headache of 1989 proportions. That year Amstrad hit the headlines when it had to swap every hard disc fitted in the PC2386 model bought by customers due to reported problems of the Seagate ST227R seizing up. Such negative press saw Amstrad's leading position in the PC market slip dramatically.

on instruction manuals, a magazine and a users' club. By Christmas 1984, Amstrad had sold 200,000 CPC 464s and it was well and truly in business.

It was time to think about the next move. "We'd decided to get people interested in cassettes first because we were trying to hit a price point for our first computer, and putting in a disc drive at that time would have doubled it," explains Roland. "But we did have an external disc drive for the 464 and we had loaded games off it when we demonstrated the computer at launch. When we began to sell it, we became inundated with people asking us to put a floppy drive in the 464 instead. We looked at this enormous demand and thought, 'Okay, we will.'"

This resulted in the CPC 664 – codenamed IDIOT, or Includes Disk Instead Of Tape – which was released in April 1985. "The market was changing and more data was needed with faster loading so we built the floppy disc drive into a new CPC," affirms Lord Sugar. "We had to move with the times." It was an ugly-looking beast that retailed at £339 for the green screen and £449 for the colour screen versions. Still, it attracted 70,000 customers and it came complete with the operating system CP/M 2.2.

"But we were also selling in foreign marketplaces and the distributors there were saying they couldn't sell a 64K computer any more because it was too low a number," says Roland. "So a completely separate research and development production team worked on the CPC 6128 which was basically a 664 with 128K of memory. We launched this in the USA first."

AMSTRAD
GT 65 Monitor
AMSTRAD
64k COLOUR PERSONAL COMPUTER
GIANT 80 PAGE ISSUE WITH YOUR CHANCE TO WIN
NEW COMPUTER EXPRESS
Issue 99 • 29 September 1990 • 70p
FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE
THIS WEEK
ARCHIMEDES
PC
ATARI
AMIGA
AMSTRAD KILLS 8-BIT
It's the end of the line for one of the classics in computing.
FULL DETAILS INSIDE
THE BEST OF ART
The top Amiga drawing program revealed
PLUS 40 PAGES OF BARGAINS
POPULAR
LOOKING FOR POP?

» Amstrad put the ZX Spectrum +3 to bed in 1990, prompting this rather dramatic headline.

US distribution was handled by Jose Luis Dominguez at Indescomp who had pestered Amstrad to allow him to sell the CPC 464 in Spain. Jose had proved hugely successful, much to the surprise of Lord Sugar who was sceptical of the Spanish market – perhaps justifiably given there were some later shenanigans involving an import tax on computers with 64K or less RAM that Amstrad was forced to get around it by soldering in an extra, yet unusable, 8K.

Lord Sugar also had reservations about selling the CPC 6128 in the USA, believing America's market to be more sophisticated and hostile to European computer manufacturers. He was right. Although the extra 64K was bank-switched and let the machine run CP/M+, which was a good selling point, Indescomp priced the machine at $799 for the colour version (complete with Amsword and a copy of *Roland In Time*) and $699 for green (with a copy of Wordstar and three blank discs). It duly flopped.

Amstrad launched the 6128 in Europe instead, replacing the 664 after just six months. "We maybe shouldn't have launched it in the UK for another six or

» Lord Sugar wanted full control over the Spectrum when Amstrad bought the rights: he didn't want Sir Clive Sinclair to be involved.

nine months," says Roland. "After all, no one in the UK knew there was a 6128 in America." Nevertheless, for gamers, the 6128 with its three-inch disc drive and 128K of RAM proved to be a decent machine.

Even better, some games made good use of the extra memory including *Nigel Mansell's World Championship*, *Hero Quest* and *Switchblade*. Not that Lord Sugar fully appreciated such things. "I did play games, the chess games and the shoot-'em-up games occasionally just to try them out a little bit. But I wasn't the expert on them, no," he tells us.

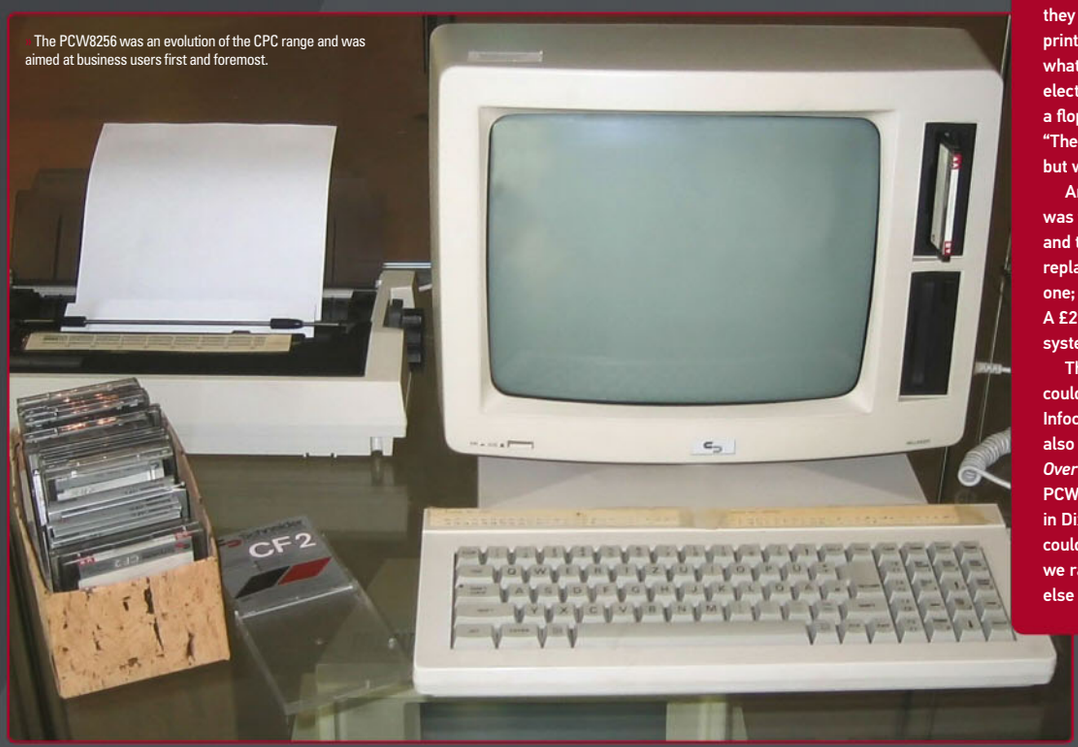
Lord Sugar was more interested in the serious business of ensuring Amstrad launched a new product each year. In July 1984, he sketched an idea for another computer, one with an A4-shaped monitor that had a built-in disc drive and a printer sat on top. By the time it launched in 1985 as Amstrad's first PCW – a dedicated word processor designed to replace the typewriter – it had a standard sized monochrome monitor and a separate nine-pin printer. "It was basically for the budding author, the small business owner or the vicar wanting to write his weekly sermon," says Roland.

Locomotive Software was involved in the process once more ("We were asked to create the word processor and came up with LocoScript," says Richard). But Lord Sugar wasn't entirely happy. "Turned out he actually wanted an electronic typewriter so he was very disappointed that you had to finish editing a document before you printed it," Richard adds. Still, the PCW was a phenomenal seller and it pushed Amstrad away from the CPC. There would be six PCW iterations in total released through to 1995. "The one thing I never understood was why no other company produced a similar machine in competition with us," says Roland. "We had the market to ourselves."

That couldn't be said for Amstrad's PC range, however. Debuting with the PC1512 in 1986 for a staggeringly cheap £499, Amstrad successfully opened up the PC market to the masses and it spawned about 30 follow-ups including desktops, handhelds and laptops. There were also two main stabs at a proper gaming PC from Amstrad – the PC5286 and Mega PC in that time – but the majority were generally aimed at serious users and they allowed Amstrad to gain as much as a quarter of the European computer market.

"THE ONE THING I NEVER UNDERSTOOD WAS WHY NO OTHER COMPANY PRODUCED A SIMILAR MACHINE IN COMPETITION WITH US"

Roland Perry



» The PCW8256 was an evolution of the CPC range and was aimed at business users first and foremost.

AMSTRAD PCW

A brief history of one of Britain's most popular PC ranges

» Unlike the earlier grey CPC models, the later PCW range of systems by Amstrad had a more business-like look to them.

When Amstrad launched the PCW range in 1985, it wouldn't in its wildest dreams have believed it would become Britain's most popular computer for a total of 31 years. But up until the Raspberry Pi sold its 8 millionth unit in 2016, that's exactly what it achieved as it sought to make the typewriter all but a memory.

The debut PCW8256, had 256K of memory, a keyboard with dedicated cut, copy, paste and print keys and a printer. "It evolved from the CPC," Lord Sugar tells us. "It had the same philosophy – a simple solution going forward." The idea was to sell a machine that primarily let users word process, making use of 90 by 32 resolution that allowed a full A4 page to be displayed without the need to scroll.

"Before the PCW, people needed a program that they ran on a computer together with a separate printer and separate monitor and I just said, 'No, what we'll do is make it all-in-one: a monitor and electronics in one box, a keyboard in front of it and a floppy disc in the cabinet,'" Lord Sugar continues. "The original drawings had the printer sitting on top but we felt that it wasn't the correct way to go."

Amstrad continued to refine its range. The 8256 was followed by the PCW8512, which had 512K RAM and two three-inch floppy disc drives; the PCW9512 replaced the green screen with a black and white one; and the PCW9256 introduced a 3.5-inch drive. A £299 PCW16 in 1995 utilised a new GUI operating system – like the Mega PC, it didn't sell.

There was some light relief, though. Gamers could enjoy adventures made by the likes of Infocom, Level 9 and Magnetic Scrolls. There were also big name titles ranging from *Batman* and *Head Over Heels* to *Match Day II* and *Last Ninja 2*. "The PCW was the first computer that had a waiting list in Dixons," says Roland Perry. "The salespeople couldn't switch customers to another product when we ran out of stock because there wasn't anything else equivalent to switch them to."

AMSTRAD

THE SINCLAIR COMPUTERS

How Amstrad carried on the Sir Clive's legacy

Lord Sugar knew how he wanted the Spectrum to look well before he picked up the phone to talk to Sir Clive Sinclair about buying Sinclair's brand and products. The entrepreneur got one of his designers to sketch it before tasking workers in Brentwood, Essex, to take delivery of a Speccy, open it up and list the components so that he could estimate how much it would cost to manufacture.

Armed with this knowledge, he was convinced he could cut costs and make a healthy profit on Sinclair's machines. So after a bit of back and forth a deal was struck and the Spectrum was soon his.

It was at that point that Amstrad realised it had another asset on its hands: former Sinclair Research engineer Richard Altwasser, who had only recently started working for Lord Sugar's firm. Richard Altwasser understood the inner workings of the Spectrum and he got on with modifying the basic chip design, improving the sound and producing a new PCB layout.

Before long, the tape-based Spectrum +2 was born, adopting a better keyboard and a similar design to the CPC 464. Selling for £140 in 1986, it sold 250,000 in the first year and it was followed by the three-inch disc based Spectrum +3. Initially retailing for £249, this included AMSDOS on a 64K ROM, although the computer wasn't entirely compatible with 48K hardware and software.

Both systems ended up being made in the Far East rather than the UK to save money. But Lord Sugar says Amstrad also solved a major problem. "The returns rate of the Spectrum was horrific. The stuff was coming back in greater numbers than they sold," he says. "I don't know why, but obviously there were technical issues."

Thankfully for Speccy fans there was never any consideration given to removing the Sinclair name, "I think much of the value was the brand," says Roland Perry, "We just production-engineered them to be affordable and reliable."

Not that Amstrad wasn't thirsty for more. On 7 April 1986, it announced it had bought the rights to sell and manufacture all existing and future Sinclair computers in a deal worth £5 million. It wasn't entirely a surprise: Sinclair Research had sold more than a million Spectrums and it had a 40 per cent share of the home computer market, yet it only limped through the previous year. Had it not been for Dixons spending £10 million taking 160,000 Spectrum Plus computers and televisions,it would have gone bust.

"Sinclair was about to go bankrupt so we just stepped in there and bought the intellectual property rights," Lord Sugar tells us. "We then took the Spectrum Plus and redesigned it, putting a cassette recorder on the end. We sold hundreds of thousands of them." Indeed, the Spectrum +2 and +3 machines were big sellers for Amstrad. The company also managed to make a killing by flogging unsold stocks of Spectrum and Sinclair QL models before axing them off completely.

Despite such activity, Amstrad didn't completely lose sight of the CPC. In 1988, it started working on revamping the 464 and 6128 to take a greater slice of the ever-growing gaming market. It also sought to take on Nintendo with the release of the GX4000 games console. Each model had a cartridge slot offering players an enhanced feature set and although the same 4MHz Z80A processor used in the CPC drove the software, there were 16 hardware sprites made up 16x16 pixels and 16 colours that could be magnified to double or quadruple normal size.

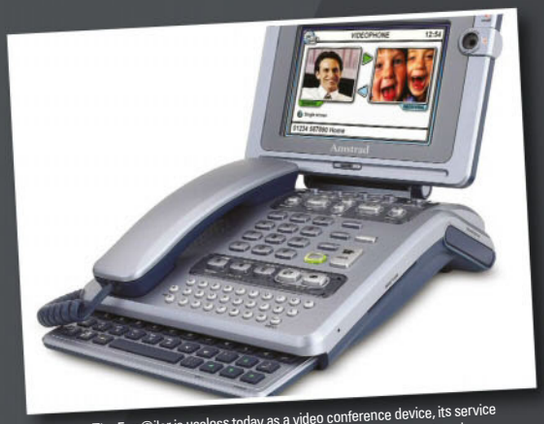
The machines also had smooth hardware scrolling and programmable scan line interrupts which gave the illusion of more colours and more sprites. A Direct Memory Access controller played music without burdening the processor, too, while the carts held 128K of accessible code.

Yet despite a palette of 4,096 colours, they were still 8-bit machines at a time when 16-bit was dominating. If that didn't put people off, then the fact too many cartridge games were straight CPC ports certainly did. "The GX4000 wasn't very good and it came at a time when we tried to resurrect stuff based on the 464 and, to be frank, it wasn't really a success, no," Lord Sugar admits. And yet Roland has no regrets. "I wouldn't say the GX4000 or Plus machines were a mistake. Loads of people were nagging us left, right and centre asking us to do something with our existing platforms so that we'd have something vaguely competitive with Nintendo and we gave it a go," he says.

"The feeling was that people wanted to load stuff off a cartridge and that, by not having this capability, we were behind the times." Given the GX4000 sold just 15,000 consoles and suffered the indignity of being discounted from £99 to £79 mere months after launch (eventually going as low as £30), it inevitably spelled the end of the CPC range. Amstrad then concentrated on the PCs and PCWs, while sticking its

Image © Retro Computer Museum

It may look primitive today next to MacBook and Surface computers, but the PPC512 was an impressive portable computer for its time.



» The E-m@iler is useless today as a video conference device, its service was shut down in 2011. You can still use it as a regular phone, though.

fingers in other pies (Lord Sugar even busying himself with the purchase of Tottenham Hotspur Football Club in June 1991).

The Nineties saw Amstrad become heavily involved in the production of satellite set-top boxes for Sky's television service. It had been offered the contract in 1989 by Rupert Murdoch ahead of Sky's proposed launch in February 1989, mainly because Lord Sugar said he could knock the devices out at short notice for a £199 price point. Amstrad met the deadline and its relationship with Sky flourished. It produced huge numbers of boxes and dishes and, continued doing so when Sky Digital launched in 1998. The digital boxes were able to receive an interactive television service, called Open, from August 1999. This even had a range of simplistic games, including *Beehive Bedlam*, *Fathom*, *Big Top Drop*, *Sheep Dip*, a version of *Tomb Raider* and *Corporal Cluck*. It was rebranded Sky Active two years later.

By this time, Amstrad PLC had actually been wound up, its shares split into Viglen and Betacom. But Betacom was renamed Amstrad PLC and, in 2000, it released a telephone and email device called the E-m@iler, followed by the E-m@iler Plus and E3 Videophone. The latter two let users download and play Spectrum games via an emulator. The E3 even came with a games controller. But Lord Sugar's obsession with these devices caused a major fallout.

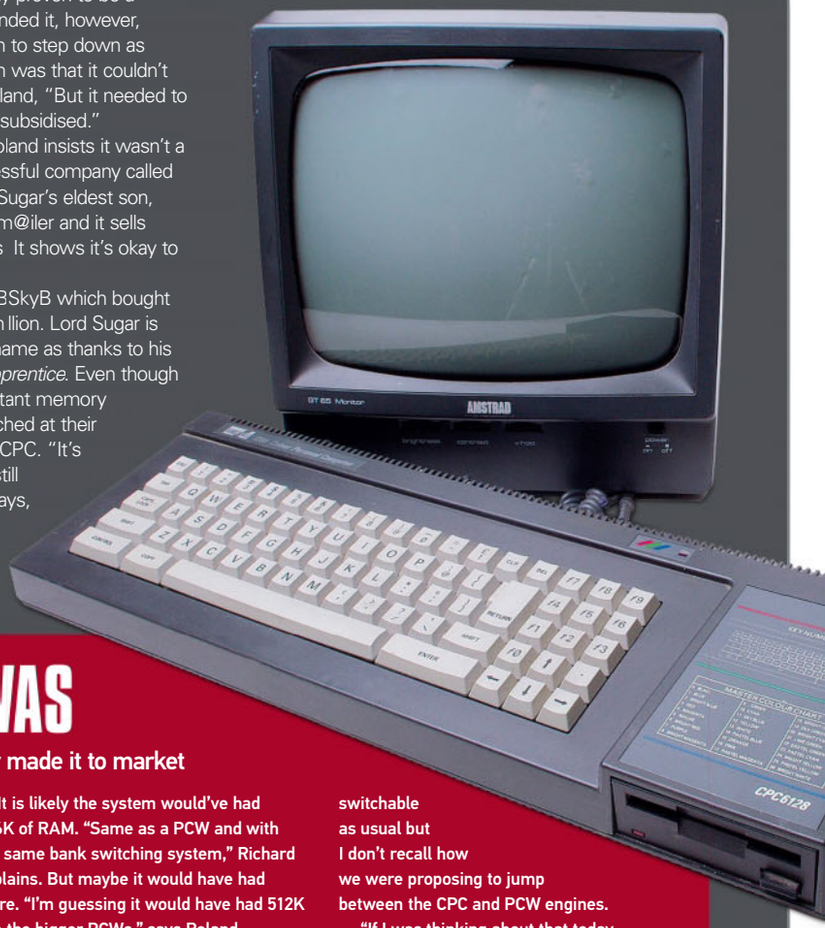
Bob Watkins, who had worked at Amstrad for 25 years, is understood to have resigned in 2001 over the machine, noting it had already proven to be a fantastic failure. Lord Sugar defended it, however, and it even outlasted his decision to step down as Chairman in 2008. "The problem was that it couldn't find a business model," says Roland, "But it needed to because the device was heavily subsidised."

Like the GX4000 and Plus, Roland insists it wasn't a waste of time, though. "A successful company called Amscreen which is run by Alan Sugar's eldest son, Simon, is a descendant of the Em@iler and it sells advertising space on digital signs It shows it's okay to have a failed product."

Today, Amstrad is owned by BSkyB which bought the company in 2007 for £125 million. Lord Sugar is also something of a household name as thanks to his leading role in the BBC's *The Apprentice*. Even though his computers are now but a distant memory for him, Lord Sugar appears touched at their enduring appeal, particularly the CPC. "It's quite surprising that people are still using the machines today," he says, "it's a long time ago and things have moved on but it was a great era for us." *

"IT'S SURPRISING THAT PEOPLE ARE STILL USING THE MACHINES TODAY"

Lord Sugar



THE CPC THAT NEVER WAS

Richard Clayton and Roland Perry reveal details on the computer that never made it to market

Work on the original line up of CPCs appeared to grind to a halt following the release of the 6128. But while history shows that Amstrad moved on to the PCW and PC market until briefly coming back to the CPC with the short-lived Plus range, there had actually been plans for one more Colour Personal Computer.

Mark-Eric Jones of Data Recall and Locomotive Software had been commissioned to produce a second machine as work got underway on the PCW 8256. Dubbed Arnold Number Two (or ANT for short), the computer was going to be compatible with both the CPC and PCW.

Having spoken to Roland Perry and Locomotive Software's Richard Clayton, we have gained a tantalising look at what might have been for the CPC as it battled against its 8-bit rivals during the late Eighties.

The 8-bit machine would have been a colour version of the PCW with a CPC emulation mode. "It would have run CPC software in emulation mode and then allowed for more fancy things," says Richard. "There was a lot of commonality with the PCW and that's why some of the bit addressing in the PCW screen memory is the odd way that it is."

The ill-fated computer would have been a colour version of the PCW with a CPC emulation mode. "It would have run CPC software in emulation mode and then allowed for more fancy things," reveals Richard. "There was a lot of commonality with the PCW and that's why some of the bit addressing in the PCW screen memory is the odd way that it is."

Image © oldcomputer.info

» The ANT computer would have used a PCW casing, with a more bespoke keyboard.

It is likely the system would've had 256K of RAM. "Same as a PCW and with the same bank switching system," Richard explains. But maybe it would have had more. "I'm guessing it would have had 512K like the bigger PCWs," says Roland.

Gamers would have been well served, too. There was elegant screen-handling hardware and more RAM would be used for the screen. However, Richard adds, "If you had colour you did not get the same screen resolution as the PCW."

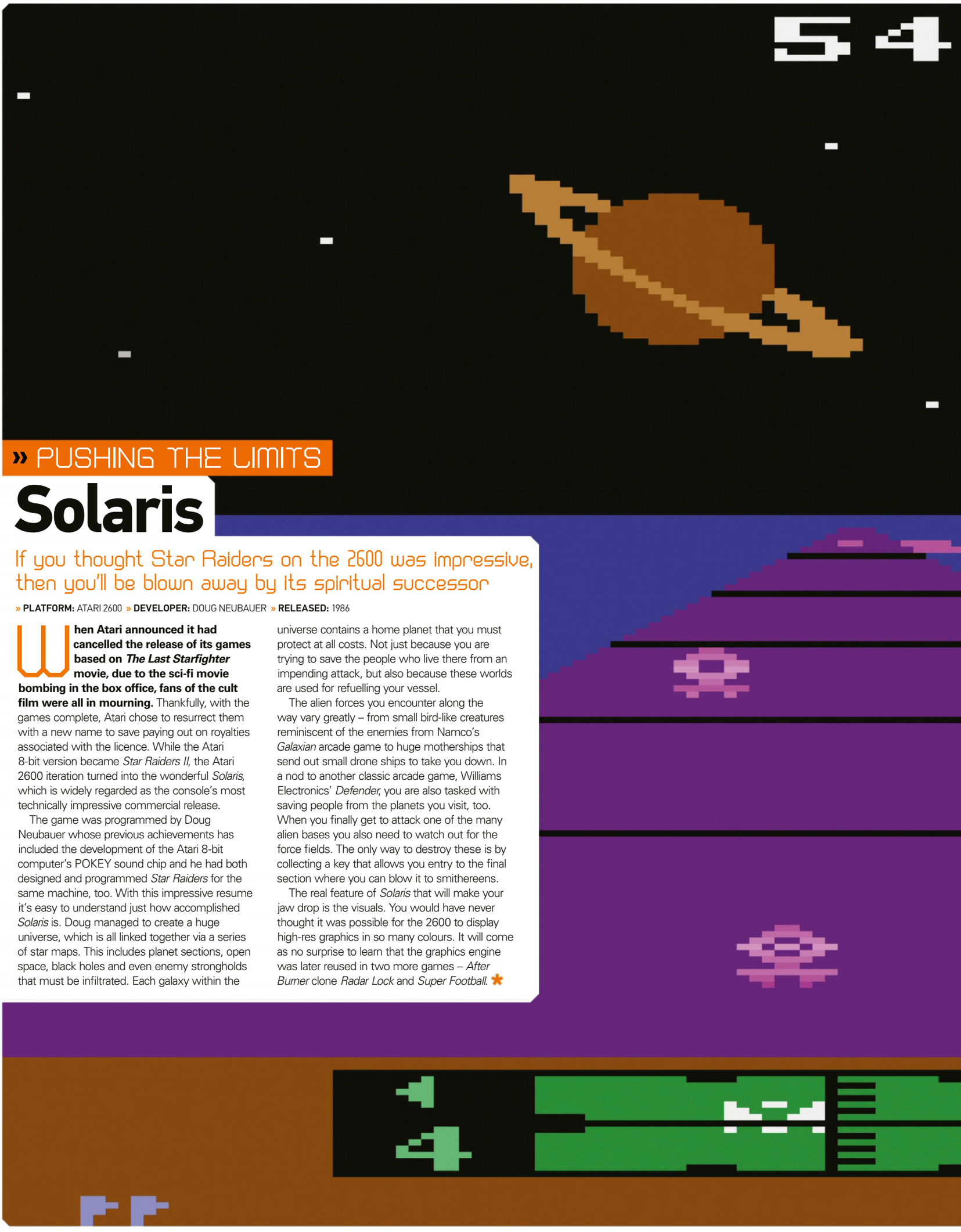
Locomotive would have provided an updated LocoScript and CP/M and had the same firmware/BASIC as the CPC for that mode. The computer would also have loaded up a CPC 464 screen. "The boot loader told the hardware to emulate and it was just like the PCW in that all of the disk handling was software," says Richard who actually owns a prototype of the machine.

"The whole point was being to run all of the available software for both the CPC and PCW in one box," Roland continues. "The different screen modes would have been switchable as usual but I don't recall how we were proposing to jump between the CPC and PCW engines.

"If I was thinking about that today, maybe this would be done by examining track zero of the floppy and then either booting the Locoscript or CP/M environment from the floppy, or switching in an image of the CPC firmware ROM."

As for how it was going to look, Roland says it would have used the same case as the PCW. "One stumbling block included what the keyboard would look like. Some games needed the CPC keys in familiar places rather than scattered around a fundamentally PCW keyboard," he says.

So why was it shelved? "That was partly our fault in that we were somewhat behind with LocoScript and so had not done very much coding for the ANT," says Richard. "Amstrad then decided it did not make sense any more, with 16-bit machines becoming more important."



» PUSHING THE LIMITS

Solaris

If you thought Star Raiders on the 2600 was impressive, then you'll be blown away by its spiritual successor

» **PLATFORM:** ATARI 2600 » **DEVELOPER:** DOUG NEUBAUER » **RELEASED:** 1986

When Atari announced it had cancelled the release of its games based on *The Last Starfighter* movie, due to the sci-fi movie bombing in the box office, fans of the cult film were all in mourning. Thankfully, with the games complete, Atari chose to resurrect them with a new name to save paying out on royalties associated with the licence. While the Atari 8-bit version became *Star Raiders II*, the Atari 2600 iteration turned into the wonderful *Solaris*, which is widely regarded as the console's most technically impressive commercial release.

The game was programmed by Doug Neubauer whose previous achievements has included the development of the Atari 8-bit computer's POKEY sound chip and he had both designed and programmed *Star Raiders* for the same machine, too. With this impressive resume it's easy to understand just how accomplished *Solaris* is. Doug managed to create a huge universe, which is all linked together via a series of star maps. This includes planet sections, open space, black holes and even enemy strongholds that must be infiltrated. Each galaxy within the universe contains a home planet that you must protect at all costs. Not just because you are trying to save the people who live there from an impending attack, but also because these worlds are used for refuelling your vessel.

The alien forces you encounter along the way vary greatly – from small bird-like creatures reminiscent of the enemies from Namco's *Galaxian* arcade game to huge motherships that send out small drone ships to take you down. In a nod to another classic arcade game, Williams Electronics' *Defender*, you are also tasked with saving people from the planets you visit, too. When you finally get to attack one of the many alien bases you also need to watch out for the force fields. The only way to destroy these is by collecting a key that allows you entry to the final section where you can blow it to smithereens.

The real feature of *Solaris* that will make your jaw drop is the visuals. You would have never thought it was possible for the 2600 to display high-res graphics in so many colours. It will come as no surprise to learn that the graphics engine was later reused in two more games – *After Burner* clone *Radar Lock* and *Super Football*.

HOW IT PUSHED THE LIMITS...

Mother Knows Best

The mothership battles are a key part of *Solaris* and features the largest enemy in the game. These vessels zoom in and out of the screen in impressive fashion launching drones in your general direction.

Planet Patrol

The smoothness of the 3D effect generated in *Solaris* is mind boggling and is never more prevalent than in the planet sections. Your craft zips over the terrain as enemies fly into your path from the horizon.

Warp Speed Ahead

Travelling from section to section in *Solaris* requires sending your ship into a hyperspace warp. Thankfully the game does this for you, so you can sit back and marvel at the incredible effects that this sequence generates.

Space Invaders

Many of the aliens in *Solaris* are very reminiscent of other space shooters, such as *Galaxian* and *Space Invaders*. But the real wonder is just how well these sprites are drawn with multiple colours and absolutely zero flicker.

ELIMINATOR

For his Nebulus follow-up, John Phillips switched from 8-bit to 16-bit and from platformer to racing shoot-'em-up. John tells Rory Milne how he made Eliminator

Although Atari launched its 16-bit ST computer in January 1985, it took three years and several price cuts for the system to accumulate the critical mass of owners required to seriously challenge its aging 8-bit competition. By late 1987, John Phillips had embraced ST development, and had started working on a follow-up to his recently released 8-bit platformer *Nebulus*. "I'd just finished *Nebulus*, and someone else was doing the 16-bit versions, so I started on *Eliminator*," John says. "Hewson sent me a video of *Enduro Racer*; I think it was the arcade version. So I was thinking about writing a racing game to start with, and the video gave me some ideas."

» [Atari ST] *Eliminator*'s final alien wave moves in an intricate pattern and requires a top-level weapon to beat.

During the early stages of its development, however, John's racing game project didn't go by the name *Eliminator*, and despite press reports from the time, none of its courses incorporated a 'wall of death'. "*AmmoTrack* was the original demo that I made, but the 'wall of death' was mainly Hewson's PR speak," John explains. "So *AmmoTrack* was an early test, but it was too much of a racing game and I wanted to make a racing shoot-'em-up. I think I'd only seen *Roadblasters* in magazines; I hadn't played it. But *Space Harrier* was an influence. I don't think I'd ever played it, either, but I saw pictures of the arcade version. I think at the time I was playing *Virus* – it was *Zarch* on the Archimedes. So I was trying to do *Space Harrier* on a *Zarch* landscape."

Soon after switching genres, John got down to designing courses for his disparately inspired racing shoot-'em-up using a recently tried-and-tested process. "I basically used the same system as I did with *Nebulus*. I designed all the tracks and then ranked them by difficulty. It was a case of just introducing more and more features. So I came up with all the effects for the corridors and the curves and sort of spaced them out. Every few tracks you would get a new feature appear, like you would get the tracks appearing in space. It was just a case of ideas popping into my head. I was even trying to put textures on

» [Atari ST] Eliminator looks ace on the Atari ST and the hectic shooting rarely lets up.

> "I basically chose to include things that other people were doing"
>
> John Phillips

the walls, but considering the game was on the ST it was quite difficult."

Having created a sequence of racing tracks of ascending difficulty levels, John next addressed the shoot-'em-up side of his emerging project by adding graceful alien formations at fixed points on each course. "It was mainly a case of memorising," John reflects, "because you had attack patterns, rather than random patterns – they were just a product of maths. So you had to learn the tracks. I can't remember how they were laid out, but they were in text files. There were just great big text files for each track. I think there was a script language. You would have a command for a certain amount of track and then a command for certain enemies appearing in patterns."

Of course, having introduced alien foes into his game, John next had to arm his protagonist's craft with weapons, and he ultimately settled on a suite of upgradeable weapons. "They were influenced by other shoot-'em-ups," John admits. "Because things like *Gradius* and *Salamander*, they had upgrades and upgradeable weapons. And I think *R-Type* was just after *Nebulus*. So I basically chose to include things that other people were doing."

Unlike John's arcade inspirations, however, his game was being designed for a home computer, which made multiple selectable weapons something of a challenge for the designer. "One of the problems on the ST was that you had a joystick with one button. So I had to find another way of doing it, which was holding down the button, and pushing up or down on the joystick. It was either that or using the cursor keys on the keyboard. It would certainly have been easier if we'd had gamepads back then."

Further features followed, as John populated his racing shoot-'em-up's tracks with invulnerable alien artefacts and roadblocks that could be blasted out of the way. "Well everything revolved around shooting," John remembers. "I think even the roadblocks were influenced by shoot-'em-ups. You had the waves of aliens, and then there were other things you had to navigate – because other than the roadsides there were no obstacles."

Additional course components came soon after, as John first introduced tunnels and then ramps to his game's tracks, which ▶

PHILLIPS' PROTOTYPES

The concepts that Eliminator and Nebulus evolved from

AmmoTrack was John Phillips' working title for an early iteration of *Eliminator*. Like *Eliminator*, *AmmoTrack* involves speeding around obstacle-laden tracks in a futuristic, armed vehicle, but it additionally charges you with racing opponents while trying to reach checkpoints before a countdown hits zero. Alternatively, you can opt to blast your competition off the road before collecting missiles, lives, fuel or time power-ups left behind in their burning wreckage. Although just a prototype, John kindly released a playable version of *AmmoTrack* into the public domain, which subsequently appeared on a cover disk attached to *Zero* magazine's December 1991 edition.

There's a more complicated backstory to *Enigma*, which started out as John's first draft of *Nebulus*. Inspired by *Uridium* and coded for the Spectrum, *Enigma* depicted a scrolling horizontal tube rotating in space and orbited by aliens sworn to destroy a ship piloted by the game's protagonist. Unfortunately, *Enigma*'s horizontal tube didn't work well on the C64, and when John stood it on its end, the fresh perspective inspired him to completely rethink his ideas. Fast-forward to July 1989, however, and we find the original *Enigma* concept revitalised as a ST demo given away with *ST News* magazine.

CONVERSION CAPERS

AMIGA

■ Ideally, the Amiga *Eliminator* would have boasted better colour and audio, but this isn't the case. It's not inferior to the original, but it also isn't much better. In terms of speed, its version is on a par with its ST equivalent.

C64

■ There are nice SID tunes in the C64 *Eliminator*, it isn't as slow as the Amstrad port and it replicates the original's course elements. However, C64 *Eliminator*'s enemies lurk in the background, which robs the game of its intensity.

ZX SPECTRUM

■ The Spectrum *Eliminator* is the fastest 8-bit version and puts the aliens up close, but its two-colour levels cause the enemies to get lost. Additionally, its tracks are all rendered in one of two colour schemes.

AMSTRAD CPC

■ If the C64 *Eliminator* is sluggish then the Amstrad port is glacial. Like the Speccy version, CPC *Eliminator* restricts its tracks to two colour schemes, but its aliens, obstacles and Eliminator craft are multicoloured.

» [Atari ST] A number of *Eliminator*'s stages have end-of-level firefights, such as this full-on space shoot-out.

▶ the developer describes as a product of necessity. "The ramps were introduced with the ceilings. I rendered the ceilings and then tried to figure out a way to get up on them. I thought it was a great idea, and it wasn't that disorientating because left and right still worked the same way."

Another of John's ideas was to give the craft in his game shields that would diminish after taking fire from enemies but could be replenished by consistently avoiding attacks, although the designer subsequently also added a lives system. "I think the shields were there from the start, but I can't remember the sequence of events. The lives were added later at Hewson's request, because it decided that all games should have lives."

John's game subsequently underwent changes of a more cosmetic nature when the designer decided to recruit an expert in ST sprite creation. "There were several games on the ST that Pete Lyon had done graphics for, and my graphics were crap," John concedes. "I needed a professional. Originally I used my own graphics. I can't remember exactly what they looked like, but the game looked more like *Eliminator* than *AmmoTrack*. I think I sent Pete some basic designs, and he did the sprites and the magnifications, and so on. But he had free reign with them. I did all the tracks and the backgrounds. I think it was just a case of managing to get textures on the tracks and realising what sorts of textures I could do within the resolution, and then Pete just popped in the sprites."

In the months before the expected release of John's

IN THE KNOW

» **PUBLISHER:** Hewson Consultants

» **DEVELOPER:** John Phillips, Pete Lyon

» **RELEASED:** 1988

» **PLATFORM:** Atari St, Various

» **GENRE:** Racing Shoot-'Em-Up

DEVELOPER HIGHLIGHTS

IMPOSSIBALL
SYSTEM: ZX Spectrum, Amstrad CPC
YEAR: 1987

NEBULUS (PICTURED)
SYSTEM: C64, Various
YEAR: 1987

ELIMINATOR
SYSTEM: Atari St, Various
YEAR: 1988

» [Atari ST] As with *Space Harrier*, *Eliminator*'s graphics can become quite hypnotic to look at.

> "Eliminator on 8-bit was piss poor. It really wasn't an 8-bit game"
>
> John Phillips

game, publisher Hewson issued a slew of press releases heralding its arrival, although at this stage the plan was to call it *Roadstar XRi*. "That was Hewson's PR again," John cringes. "It owned the name *Roadstar XRi*, but I didn't like it. I think *Eliminator* was either my name or it was from someone at Hewson. I think Hewson was in the process of doing the title screen at the time, and I think that the artist who was doing it complained about the name *Roadstar XRi*."

However it gained its name, *Eliminator* was to be Hewson's first original 16-bit title, and during its development John had also taken over the production of the 16-bit versions of his 8-bit hit *Nebulus*, although the developer found promoting the games more stressful than creating them. "It was probably more pressure when I got to a PCW show and Hewson announced *Eliminator* and *Nebulus* were being released in the same month. There was a Hewson stand and we were demoing the games. I talked to journalists at the show, but it was mainly phone calls. I think *Nebulus* got about 15 front covers and *Eliminator* got one."

Promotion aside, the feedback John received about *Eliminator* from the press and public attending 1988's PCW show was almost entirely positive bar for one reservation, which the developer subsequently addressed. "The music was described as muffled. But I was doing various demos for people, and there was one magazine called *ST News*. They published one of my music demos; it had four or eight channels, proper music on the ST. But I can't remember if I managed to use that in *Eliminator* or if I went another way."

Regardless of the specifics, the music in the version of *Eliminator* that ultimately got released was perfectly clear, but John was never the less disappointed with the response to his game. "Sales of *Eliminator* were a lot less than *Nebulus*, they were probably about a quarter. I thought the reviews were okay. They were all extremely positive for *Nebulus* but *Eliminator* scored a bit less. It was probably because people weren't expecting a shoot-'em-up, and it was this weird game with all these weird effects and stuff. I think also that the 8-bit versions didn't help at all; *Eliminator* on 8-bit was piss poor. It really wasn't an 8-bit game."

Looking back at the decision to convert his ST original to other formats, John is philosophical, and he recalls helping out where he could. "Hewson was the publisher, and it wanted to publish things. There was a guy who worked in Hewson's office, he did the Spectrum version, and I think he did the Amstrad version. I remember going to the office quite a few times helping him. Then the C64 version was done by a couple of guys who kept sending demos into Hewson. For the Amiga version, we ended up sending the ST version to someone; I think they were a part of Rainbow Arts. They had a process that let you plug in an ST disk and it would write out an Amiga disk."

On the question of why *Eliminator* didn't receive a sequel, John cites a lack of sales, Hewson's precarious financial position at the time and his fertile imagination. "I just wanted to move onto another idea after *Eliminator*, that was all. And I don't think Hewson were selling anything; it was very close to the end of the company. It would also have required *Eliminator* to have sold an awful lot more in the first place, which it didn't."

When given the last word on *Eliminator*, three decades later, John offers a typically modest and thoughtful summation. "I'm fairly proud of *Eliminator*, I don't think I'd make changes, really. I think it was quite good; but it was just rushed. That period of my life was rushed. It was partly stopping to do the 16-bit versions of *Nebulus*, but I think I just had all these ideas and I was trying to make demos of all of them." ✱

Many thanks to John for his time.

» [Atari ST] In *Eliminator*'s penultimate stage, the alien waves attack from the rear in large numbers.

CLASSIC MOMENTS

Pilotwings

» **PLATFORM:** SNES » **DEVELOPER:** NINTENDO EAD » **RELEASED:** 1990

We all know that the most important part of a game is how you interact with it. But let's be honest, if that was all we got excited about, *Rise Of The Robots* wouldn't have got nearly as much coverage as it did. And that's okay – sometimes it's fine to be excited about graphics. It'd be disrespectful to the artists involved if we didn't, wouldn't it?

In the early Nineties, no graphical technology was more exciting than Mode 7. The islands in *Pilotwings* could be seen from any perspective – up close when you landed, or in a worryingly vertical fashion when you were descending too quickly in the plane. But nothing ever beat starting off a hang-glider stage, when you could see a whole island in the distance with the knowledge that it wasn't just some background scenery. There had been many stunning views in gaming before and many have come since, but this one showed off the potential of a new technology in an absolutely breathtaking fashion.

BIO

Arriving just one month after the Japanese launch of the Super Famicom, *Pilotwings* was a sophisticated arcade-style flight simulator which allowed players to enjoy four different events – flying a light plane, a rocket belt or a hang glider, and skydiving. The game was a thorough demonstration of the application of the Mode 7 capabilities of the SNES, as the ground was represented using the console's signature graphical technique. This allowed for the portrayal of a detailed pseudo-3D environment at a higher speed than was possible with the true 3D techniques of the time. Success followed, along with N64 and 3DS sequels.

MORE CLASSIC PILOTWINGS MOMENTS

Sticking The Landing

In *Pilotwings*, flight is the easy part. The hard bit is when it comes time to return to terra firma, without winding up with a mangled body and wrecked flight equipment. So when you manage to successfully land right where you're supposed to, the points you get are secondary to personal satisfaction.

Low-Altitude Flight

There's a dangerous thrill to be had by taking a high-powered flying machine and skimming just over the surface of the Earth – you're always just one mishap away from total disaster. So when that's exactly what the game wants you to do, it's easy to get just a little bit giddy with joy.

The Ascent

You can't skydive without first having a high place to fall from – and rather than starting you off in mid-air, *Pilotwings* takes the time to show the whole process. The ground shrinks into the distance as a helicopter raises you ever higher into the air, before your inevitable descent begins.

Rescue Mission

Once you've passed all of your flight lessons, you might think that life would get easier. Not a chance! Suddenly, your instructors are kidnapped by enemy forces and it's up to you to man an attack helicopter and rescue them, as the game's gentle pace briefly gives way to a more action-oriented experience.

LICENCE TO THRILL

NOW SHOWING: BILL & TED'S EXCELLENT ADVENTURE

FILM

- **» YEAR:** 1989
- **» DIRECTOR:** Stephen Herek
- **» STARRING:** Keanu Reeves, Alex Winter, George Carlin
- **» BUDGET:** $10 Million
- **» BOX OFFICE:** $40.5 Million

GAME

- **» YEAR:** 1991
- **» PUBLISHER:** Off The Wall Productions / Al Baker & Associates / Beam Software
- **» DEVELOPER:** Capstone Software / Atari/LJN

Few films have had such a huge impact on pop culture as Bill & Ted's Excellent Adventure. Kieren Hawken takes us on a bodacious trip back through time

There was a time back in the late Eighties and early Nineties when almost everyone was reciting lines from *Bill & Ted's Excellent Adventure*. In classrooms and playgrounds all around the world you could hear cries of, "Totally bodacious!", "No way – yes way!" and, "Party on dude!" Even today, the adventures of Bill and Ted continue to have an impact on pop culture.

» [Lynx] The many famous phrases used in the original movie feature frequently in Atari's Lynx version.

Who hasn't seen a meme with Keanu Reeves' fresh-looking face on it?

Written by Chris Matheson and Ed Solomon and directed by Stephen Herek, the film starred Alex Winter as Bill Preston, Keanu Reeves as Ted Logan and George Carlin as Rufus. Not only was the film commercially successful, it is now considered a cult classic and spawned a sequel two years later in the form of *Bill & Ted's Bogus Journey*. The success of the film obviously made it ideal videogame fodder, especially when you consider the movie's younger target audience. Unusually for the time, it wasn't just one company which picked up the licence for *Bill & Ted*, Orion Pictures chose to sign agreements with several different publishers: Capstone Software picked up the rights for the home computer versions, LJN grabbed the Nintendo rights and, in a more surprising move, a usually tightfisted Atari paid out for the opportunity to produce an excellent adventure for its handheld Lynx console.

The film's plot tells us that in the year 2688 the human race lives in a utopian society due to the inspiration, music and wisdom of the so-called 'Two Great Ones': Bill Preston Esquire and Ted S Logan. Time traveller Rufus has been tasked by the leaders of this world to travel back to San Dimas, California, in 1988, using a special ship disguised as a telephone booth, to ensure that Bill and Ted get good grades in their final-year history exam. The problem is that Bill and Ted are nothing more than dimwitted slackers who are more interested in heavy metal music than history. If they fail their exams then Ted's father, local Police Captain John

> **"Ted, you and I have witnessed many things, but nothing as bodacious as what just happened"**
> Bill S Preston Esq

Logan, plans to ship Ted to a military academy in Alaska, thus ending the emergence of Bill and Ted's fledgling band the Wyld Stallyns. As any fan of time travel will probably know, changing major events such as this would have a catastrophic effect on the future. The best buddies are really struggling with their history assignment, which asks them to envisage how three historical figures would see San Dimas in the present. For some reason, Bill and Ted try to enlist the help of random strangers at the local Circle K convenience store, but Rufus arrives just in time to stop the poor plan. At first the tubular twosome don't trust Rufus and send him away, but our time-travelling hero has a trick up his sleeve as he comes back with two assistants – future versions of Bill and Ted themselves! They prove to their younger selves that they are really them and that they should trust Rufus implicitly. From here the film really starts as they all take a trip through the past that has the trio interacting with a number of very important historical figures.

The excellent adventure that Bill and Ted embark upon sees them kidnap many of these characters that they encounter to aid them with their school project. Before long, the gnarly troupe includes such figures as Napoleon, Billy the Kid, Henry VIII, Beethoven, Joan of Arc, Socrates, Abraham Lincoln, Sigmund Freud and Genghis Khan. Each of these characters leave an important impression on the lives of our heroes, as do the many locations that they visit along the way. In many ways, the array of situations that feature in the game make it perfect for a videogame adaptation. At the time, the common template for a movie game was to take key scenes from the film and build levels around them. This was something that had previously been perfected by Ocean Software. So it's especially interesting that each of the three separate parties involved in the videogame adaptations of *Bill & Ted* took disparate different approaches to their games. Capstone,

» (Top) [C64] One of the minigames that are featured in the home computer adaptations.

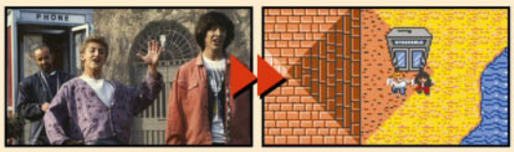
» (Above) [Game Boy] This fun effort earned 'Classic Game' status in issue 80.

MOVIE TO GAME COMPARISON

Were the film and videogame excellent to each other?

WYLD STALLYNS

One of the key elements of the film is Bill and Ted's obsession with becoming famous as a rock band. Their oddly-spelled group, The Wyld Stallyns, features heavily in most videogame adaptations, as you would probably expect – usually spelled wrong.



THE TIME MACHINE

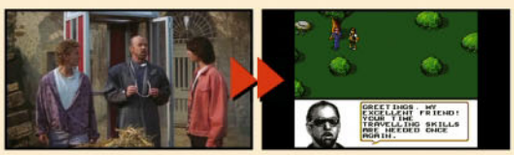
Given that the whole story of *Bill & Ted's Excellent Adventure* revolves around time travel, you would expect to see this featured heavily in the games too, and it most certainly is. The phone box-shaped time machine is certainly hard to miss in every version.

HISTORICAL FIGURES

In the film both Bill and Ted get to meet a wide range of famous historical figures, each of them teaching the duo something new. This continues in all the home versions of the game as well. Interestingly, the likes of Abraham Lincoln and Billy The Kid are foes in the Game Boy version.

CIRCLE K

The film really gets started when our heroes first meet up with Rufus outside a Circle K convenience store. This might not seem like something that really needed to be in the game, but the local shop made it into all of Capstone's computer versions.



RUFUS' WISDOM

While his name might not feature in the title of the film, Rufus plays every bit as an important role in the movie as Bill and Ted themselves do. So it's pleasing to see that George Carlin's character makes it into most of the videogame adaptations, too.

Q&A: ANGIE NIEHOFF

Angie was the producer on the Bill & Ted's Excellent Adventure games for Capstone Software

Firstly, how did Capstone acquire the licence for *Bill & Ted's Excellent Adventure*?

In the late Eighties and early Nineties it was popular to make PC games out of movies. Capstone started licensing lots of titles from Fox before it got back into the gaming business in mid-Nineties and before the next-gen consoles came out. We worked with a couple other studios, too, as the results always proved lucrative. Not sure exactly how we got the *Bill & Ted* property, but we were always looking for more licences.

Did you get to see an early preview of the movie or get invited to the premiere?

I remember that we went as a team to view the movie, I think it was a local premiere of some kind in Florida. We also did *Wayne's World*, *Homey The Clown* and *Home Alone* games around that time, so it's hard to remember which was which! We also did games based on *The Beverly Hillbillies*, *Terminator 2*, *Star Trek*, *Zorro* and *Miami Vice*. So it's fair to say that we watched a *lot* of movies at Capstone!

Tell us a little about the creative process involved in making a movie-based videogame.

We would get a movie script and then try to create something that followed along with it as best as possible. So *Bill & Ted* was definitely going to be an adventure through time based on that. There wasn't a lot more to it than that. We were just concerned about making sure that the studio would sign it off.

Apart from your role as a producer, did you get involved in anything else?

Yes, I also did all the copywriting for the boxes and promo images as well as working on the studio sign-offs and helping to get all the licences that allowed us to produce the games. It was actually doing all this other work that eventually got me the producer title!

Did you get to meet any of the cast and do you know if they played the game?

I doubt that the cast even knew the game existed! I was just the marketing person to most people so they weren't exactly begging to meet me, sadly. But I still enjoyed it, it was a fun time to be in the games business before consoles, like the PlayStation, arrived and the big budgets took over and there were hundreds of people involved in every release.

▶ which published the Amiga, PC and Commodore 64 versions of the game, chose to go for a side-scrolling arcade adventure where you have to find the right items to bribe each historical figure to return with you. In many ways it's quite reminiscent of the *Monkey Island* games, but more arcade-like in its execution with you using a joystick to guide both Bill and Ted around at once. Surprisingly, LJN's NES and Game Boy offerings are both very different. The NES game is an isometric arcade-style adventure while the Game Boy offering is a decent platformer that reminds us of *Chuckie Egg*. Last but not least, Atari's Lynx game is a top-down, RPG-style adventure game that is somewhat reminiscent of *The Legend Of Zelda* in many ways.

Of all the games released, it's the NES game that is perhaps the most notorious, receiving a number of disappointing reviews on release. The NES game was the subject of an episode of *Angry Video Game Nerd*

» [Game Boy] While the Game Boy version doesn't follow the film's plot, it does feature many of its locations.

» [Amiga] The Amiga version of *Bill & Ted* gives us a surprisingly faithful retelling of the film's events.

where the titular character bemoaned about the illogical nature of LJN's offering, a company widely renowned for the poor quality of its games, and the inability to interact between the two main characters. He was also very critical of the way it deviated so massively from the actual film, but did praise the impressive isometric visuals. LJN's Game Boy version is very similar to the NES game in that it's nothing like the movie, which is probably why some mags gave it low scores at the time. *Game Zone* magazine was very critical of it on release calling it "the worst Game Boy game ever". What's interesting is that many people have rediscovered the game in later years and opinions have softened, seeing it as a fun platformer with rather ugly graphics. Despite following the film far more closely with much higher production values, Capstone's computer-based offerings also failed to impress, garnering distinctly average reviews across the board. *Amiga Format* complained that the game was, "Just too undemanding and unspectacular to merit the asking

NOTABLE VERSIONS

ATARI LYNX

■ While the Lynx adventure doesn't follow the plot of the film at all, instead choosing to create its own story of events a bit like an alternative timeline, the general themes remain very much the same. It's one of only a few RPG-style games for the machine so well worth picking up.

PC DOS

■ Capstone's lead version of *Bill & Ted's Excellent Adventure* can be played on both CGA and VGA machines with the latter featuring digitised stills from the movie and being generally more impressive. It's just a shame the actual game is so easy to breeze through.

NES

■ This version of the game is a leaves a sour taste, because it could have been so good. Beam Software's isometric 3D game engine is a joy to behold and promises so much. Unfortunately, the confusing and obtuse game design ruins the NES iteration completely.

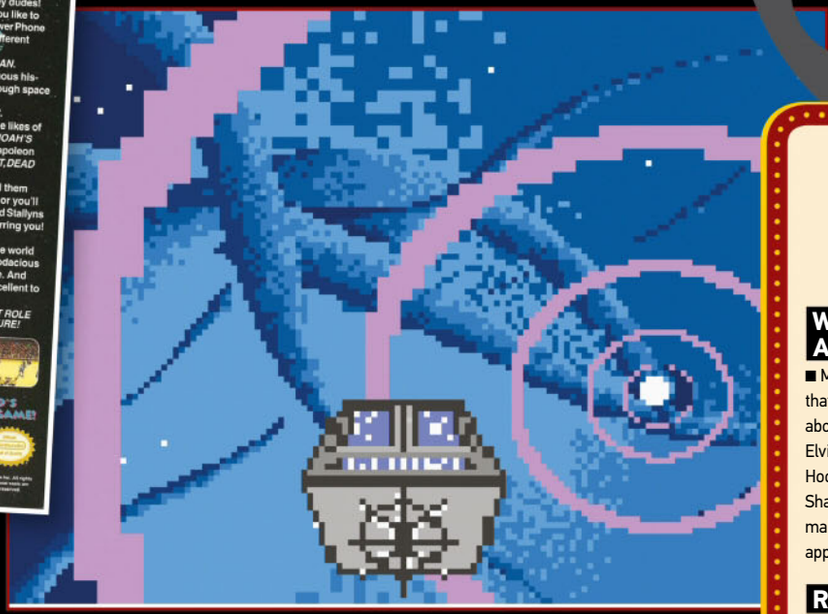
COMMODORE AMIGA

■ The Amiga version of *Bill & Ted* is very similar to the PC DOS original, as you would probably expect. Like the PC version, it's also very close to the original subject matter and closely follows the plot of the film. Sadly it's also just as easy to complete, making it a bit disappointing.

BILL & TED ON NES?
TRULY EXCELLENT!
Hey dudes! How'd you like to ride the Power Phone Booth to six different worlds.
GALACTIC, MAN.
Search for famous historical dudes through space and time.
MOST COSMIC.
Party with the likes of Joan of Arc (NOAH'S WIFE) and Napoleon (THE SHORT, DEAD DUDE).
Then send them back in time or you'll miss the Wyld Stallyns concert—starring you!
HEAVY.
Save the world in this bodacious adventure. And remember—be excellent to each other!
A MOST EXCELLENT ROLE PLAYING ADVENTURE!
Bill & Ted's EXCELLENT VIDEOGAME adventure
ALSO LOOK FOR BILL & TED'S MOST EXCELLENT GAME BOY GAME!

price. It would be ideal for the younger players, but older dudes really needn't bother." The main quibble seemed to be that it was just far too easy and lacked any kind of serious challenge. The Atari Lynx version fared a little better than its rivals, getting some quite mixed reviews across the board. While some people loved it, proclaiming it as the Lynx's first proper RPG, others didn't seem to think it was well suited to a handheld, being too challenging and taking far too long to play. One thing is clear, the *Bill & Ted* games didn't end up being as excellent as they could have been.

With the mixed response of the various *Bill & Ted* videogames, it probably won't come as any surprise to learn that despite the relative success of the sequel, *Bill & Ted's Bogus Journey*, no titles were produced for the follow-up with the licence being turned down by everyone it was offered to. An animated cartoon series also followed the films that featured the voices of the original cast, which proved fairly popular, as well as live-action series too, which featured none of the original cast, except Lisa Wilcox, and was less popular. Due to this, the live-action series was cancelled after just seven episodes by Fox. A third movie has often been talked about and both Reeves and Winter have never ruled it out, especially given the cult status the film now holds. To this day it remains 'Certified Fresh' on popular movie aggregate website Rotten Tomatoes, with a rating of 78% and a score of 6.5/10, based on 45 reviews. The site's critical consensus reads: "Keanu Reeves and Alex Winter are just charming, goofy and silly enough to make this fluffy time travel Adventure work." The film holds up better than most of the games do, so just remember dudes: "Party on and be excellent to each other!" ✱



» [Lynx] The time travel sequences from the Lynx version make great use of the system's hardware scaling effects.

ARTISTIC LICENCE

Did that really happen?

WHO THE HELL ARE YOU?

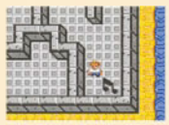
■ Many versions feature characters that aren't in the film but the NES goes above and beyond, with icons such as Elvis, Robin Hood and Shakespeare making an appearance.

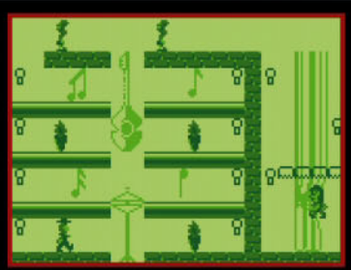
RETRO COLLECTOR

■ Remember that bit in the film where Bill and Ted had to jump across platforms collecting big shiny spheres? Thought not. It seems LJN had very different memories!

DUNGEON MASTERS

■ Exploring dungeons seems to be quite a big part of both the Lynx and NES versions of the game. We are not sure why because it certainly wasn't a key feature of the film.





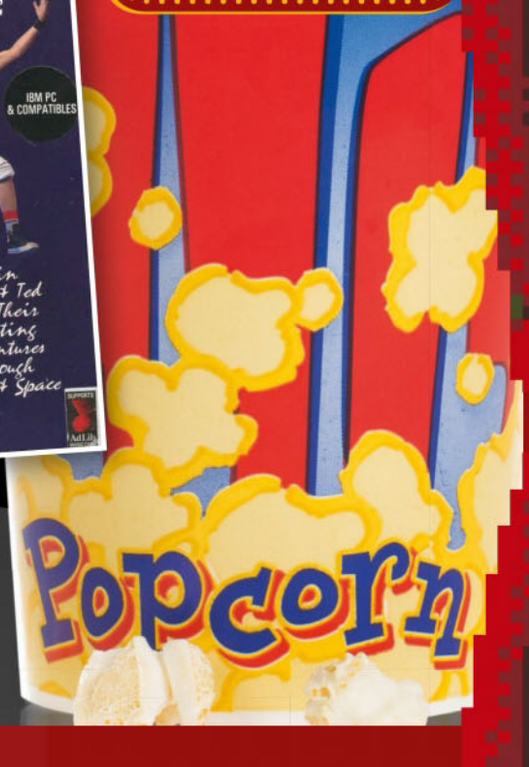
GAME BOY

■ LJN's Game Boy offering is absolutely nothing like the film, but don't let that put you off. Underneath the ugly-looking visuals is a solid game that's reminiscent of the likes of classics such as *Manic Miner* and *Chuckie Egg*. An enjoyable game that has matured with age.

COMMODORE 64

■ Commodore's hugely popular 8-bit computer also got a conversion of the original PC game too. As you would expect, the graphics have been downgraded significantly over the 16-bit version and look pretty ugly for it. The simplistic game design doesn't really help matters, either.

The Computer Game!
Bill & Ted's
EXCELLENT adventure™
IBM PC & COMPATIBLES
Join Bill & Ted On Their Exciting Adventures Through Time & Space
Capstone



» [SNES] Rayman winds up to punch, but can't actually throw one just yet.

RAYMAN

Ubisoft's hero was originally scheduled to appear on the SNES, only to go missing. But it wasn't quite the game we know today, as Nick Thorpe explains...

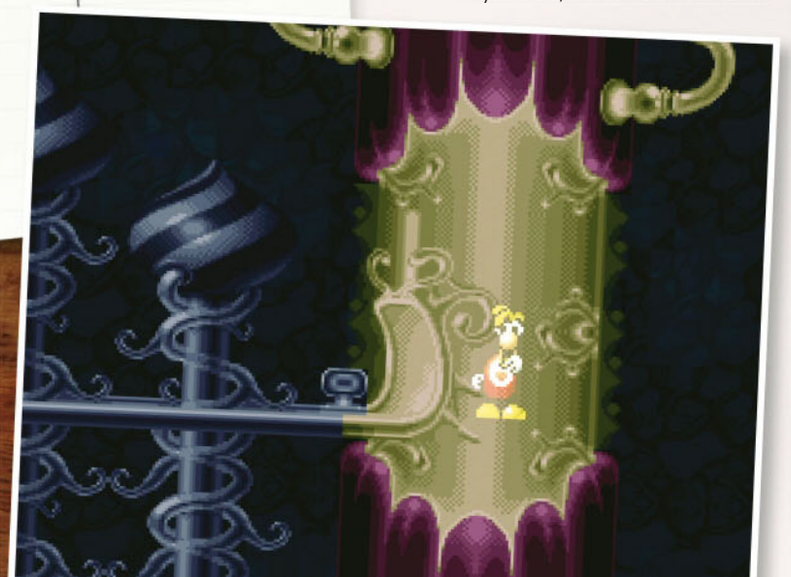
IN THE KNOW

» **PUBLISHER:** Ubisoft

» **DEVELOPER:** Ludimedia

» **SYSTEM:** SNES

» **DUE FOR RELEASE:** 1995



Some videogame characters have a simple journey from concept to creation, but Rayman wasn't one of them. Michel Ancel's first ideas for Rayman were artistic designs he'd drawn as a teenager. At this point, Michel hadn't yet made it into the videogames industry, but he wouldn't have to wait long – at just 17 years old, the same artistic talent that inspired those character doodles gained him employment at Ubisoft. After a few years of working on the visuals for games like *The Intruder* and *Pick 'N Pile*, he revisited those earlier sketches to begin work on his directorial debut, *Rayman*.

When Michel Ancel began work on *Rayman* in 1992, he did so as something of a one-man band, tackling everything from sound design to graphics and programming. What's more, he was doing it all on the Atari ST. This changed when programmer Frédéric Houde joined the project. The Atari ST was a format in decline by the early Nineties, and consoles were taking over the gaming world, so the decision was made to target the game towards the forthcoming CD-ROM add-on for the SNES. The logic behind this move was sound – Michel Ancel had lofty ambitions when it came to the visual quality of *Rayman*, and with a 32,768 colour palette and 256 simultaneous colours on-screen, the SNES had more graphical grunt than other consoles of the time.

Unfortunately, as time went on it became clear that there would never be a SNES CD-ROM format. The agreement that Nintendo had signed with Philips wasn't bearing fruit, and by 1993 Sony had abandoned its plans to manufacture the SNES/CD hybrid PlayStation, instead setting out to create a powerful next generation console. *Rayman* subsequently moved to a standard SNES cartridge, and development for this made quite a bit of progress despite the development team still being limited to just Michel and Frédéric.

The first public look at a SNES version of *Rayman* came courtesy of French retro gaming magazine *Pix 'N Love*, which was given exclusive screenshots by Michel Ancel. These showed some interesting differences compared to the final game – a two-player co-operative mode was planned at this stage, and a prominent HUD

OR YOU COULD PLAY...

PLOK
1993, SOFTWARE CREATIONS

■ This SNES platformer went for a more simplistic comic book style than *Rayman*, but shared similarities in terms of how attacks were performed – Plok could shoot his fists and feet at enemies, in a manner reminiscent of Rayman's disembodied punching.

DYNAMITE HEADDY
1994, TREASURE

■ Treasure's head-swapping hero actually resembles Rayman a little bit – he's humanoid but clearly not human, and has tiny limbs that might as well not be there. He's also fond of lobbing his detachable head at enemies in order to take a bite out of them.

FLINK
1994, PSYGNOSIS

■ Few games could match the ambition that Michel Ancel had for *Rayman*'s visuals, but pixel art master Henk Nieborg certainly went all-out with Flink – and working on the Mega Drive, he had even stricter colour limitations, making the results all the more impressive.

» [SNES] Rayman's sprite is already very polished – leave him alone and he'll breakdance.

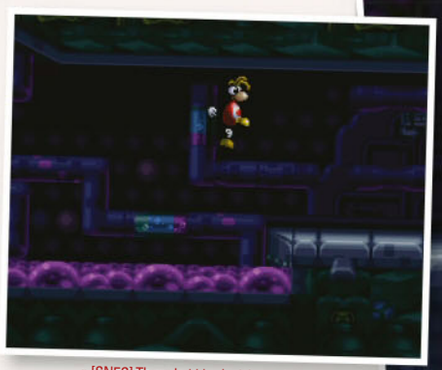
displayed 'Shield' and 'Power' bars. Early versions of the Dream Forest and the Caves Of Skops are shown, and an early version of Mr Skops even appeared. Michel Ancel would later post versions of these images on Instagram in 2016, lamenting that although the game was running on the SNES (at 60 frames per second, as he was keen to note), the prototype had been lost. This prompted Frédéric Houde to dig through his archives and within a week, he'd found a bare ROM board featuring a barebones proof-of-concept demo of *Rayman* for the SNES. This was sent to Omar Cornut, who took a break from developing the *Wonder Boy: The Dragon's Trap* remake to dump and release the ROM for preservation.

Examining this early ROM, it's clear that a number of Rayman's characteristics were locked down. His appearance isn't far off from the final version, though he's a bit pudgier and his torso is red instead of purple, and his walking animation works similarly, too. It's possible to wind up a punch and even charge to a second level, but it's not possible to actually release an attack – so it's a good job there are no enemies present. The stage itself doesn't resemble anything from the final game, and is a small area with no coded hazards. One item, a lightning orb, and one bug-like enemy exist in the data of the ROM, but aren't implemented at any point.

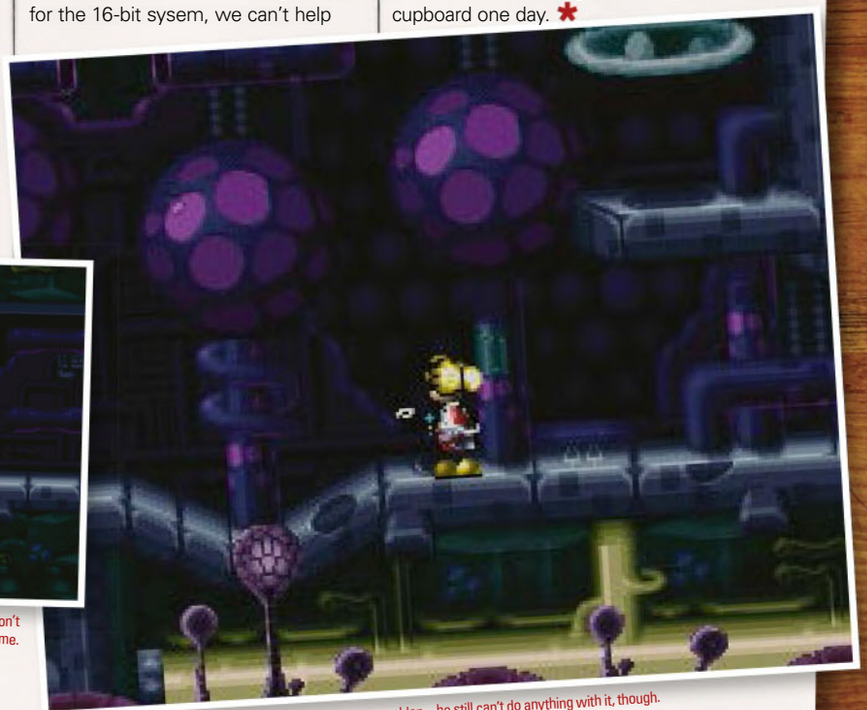
The SNES game definitely progressed beyond this point, but no further builds have been unearthed at this time. Development was later switched away from the SNES, since Michel Ancel felt that Nintendo's machine couldn't do justice to his vision for the game. In a previous interview with **Retro Gamer**, Michel Ancel explained, "When the Atari Jaguar was released, I felt it was the first console that was capable of displaying our graphics." The game went on to release on Jaguar, PlayStation and Saturn in 1995 and achieved critical acclaim and enormous sales – in fact, it was the best-selling PlayStation game of all time in the UK.

> "Michel Ancel felt that Nintendo's machine couldn't do justice to his vision for the game"

While the fragments of *Rayman* that exist for the SNES prove that it would have been a beautiful game for the 16-bit sysem, we can't help but feel that the decision to move it to the new formats was a helpful one in the long run. The additional colour capabilities on the more powerful systems allowed for *Rayman* to look almost as if it were a painting that had sprung to life, rather than simply an exhibition of excellent pixel art. What's more, 16-bit console owners had more than enough choice when it came to platform games, and moving *Rayman* into the less-crowded next-gen market gave the game a better chance to succeed. Still, that doesn't mean that we wouldn't love to see more of what might have been – let's hope that a more complete SNES build turns up in a forgotten dusty cupboard one day. *



» [SNES] These bubbles look hazardous, but don't actually do anything in this build of the game.



» [SNES] Charge for long enough and Rayman's glove turns golden – he still can't do anything with it, though.

Graftgold

Creative Software

Encompassing the UK home computer industry, and stretching across to the consoles of the Nineties, Graftgold had more than its share of ups and downs during its 15-year existence. We caught up with two of its key creators to find out more

We are excitedly sitting opposite Steve Turner and Andrew Braybrook, authors of several iconic 8-bit games. Their company, Graftgold, began life as ST Software in 1983. "I started off on my own, but got lonely sitting in my dining room programming all day," grins Steve. "I knew Andrew, as we'd met in the pub after being introduced by a mutual friend, so he joined me a couple of months later." Andrew Braybrook would soon become a name that Commodore owners would utter with hushed reverence, but it was on another computer that he produced his first games for Graftgold. "My father had a Dragon 32," he says, "and I was itching to write games on it. I converted Steve's first game, to show him what I could do. I didn't even have an assembler, I was working it into machine code by hand and then typing it all in."

After school, Steve had joined the civil service, while Andrew wrote accounting programs for GEC Marconi. Both decided that making games would be more fun. "I noticed that most arcade games of the time were 2D," remembers Steve, "so I reasoned the next step would be a 3D-style display – that was my unique selling point." The result was *3D Space Wars*, an uncomplicated, but technically impressive, shoot-'em-up. Having briefly considered self-publishing, Steve decided to approach Hewson Consultants in order to get his game to market. "What I liked about Hewson, and why I chose them, was that they did everything in-house. They had their own duplication plant, which gave them better control. They could just run off copies when they needed it. Andrew [Hewson] also had a good relationship with the magazines, and even wrote for *Sinclair User*." After impressing the publisher with his initial *Seiddab* games, Steve produced the brilliant *Avalon*, a highly impressive action adventure, and his most complex game to date. "Although arcade games were far ahead in technology," says Steve, "we thought we could include the in-depth gameplay that they didn't have." Having already gained

» [ZX Spectrum] Steve Turner's *3D Space Wars* stood out from the Spectrum's catalogue of 2D and isometric games.

» [ZX Spectrum] Steve Turner's adventures *Avalon* and *Dragontorc* were streets ahead of most other Spectrum games of the era.

programming experience, Andrew and Steve knew how to design complex routines using structured diagrams, and were able to discuss ideas and code efficiently. "But we had to become experts in machine code ourselves. You had a sense what you were doing was absolutely new."

Andrew's Dragon conversions of the *Seiddab* games were also sold by Hewson Consultants. He says, "Steve was writing for the 16K Spectrum at the time, so I had twice the amount of memory. I often put in more graphics to use up more space, it had professional tools available, and a proper keyboard too. It was a nice machine, but it kinda died." ST Software was beginning to rake in some serious cash, and operating as a sole trader became unviable. "I had a house in Witham," recalls Steve, "and we worked in the dining room on a couple of makeshift desks. But we needed more room, and I realised I was going to get clobbered with tax. So we decided it was time to form a company, then become employees." Steve selected an off-the-shelf company, and hit lucky with the shiny precious metal moniker Graftgold.

After the failure of the Dragon, the pair decided to wait and see what became the dominant force against the Sinclair

» [ZX Spectrum] *Quazatron* follow-up *Magentron* was dogged by Graftgold's legal issues.

> **"I realised I was going to get clobbered with tax. So we decided it was time to form a company"**
> Steve Turner

computer. "One of Andrew's friends got a Commodore 64 and it looked like it was going to be a good bet because it was so perfect for games," Steve remembers. "We saw the scrolling and sprites, and of course the sound was amazing. Yet in the adverts, Commodore were trying to sell it as a business machine!" With the Commodore 64's CPU chip not totally dissimilar to the Dragon's, it was a natural machine for Andrew to gravitate towards. "It wasn't that fast a machine, but the hardware more than made up for it," he says proudly. "What that graphics chip was doing for you, essentially for free, made it tremendous. You had to design games around the hardware, which is why *Gribbly's Day Out* was different to anything I'd done before."

Games aside, Graftgold's premises needed urgent addressing. The solution was a residential move for Steve to a larger house in Witham, Essex, which had the advantage of an outbuilding that the two men converted into a workplace. "We spent our weekends and evenings out there," gestures Steve with a thumb. "We put plasterboard up, a ceiling and proper insulation." Andrew smiles as we discuss the compact office. "It was actually quite cosy. We had our own telephones and desks, and a nice display cabinet with all our games in." It was

» [ZX Spectrum] Another technically-impressive Spectrum game: *Seiddab Attack*.

within this small building – not 20 feet from where we sit – that some of the greatest Spectrum and Commodore 64 games of the mid-Eighties were created. The facilities were completed with an expensive dot matrix printer that the pair used to examine game code.

And what games. On the C64, *Gribbly's Day Out*, *Paradroid* and *Uridium*; on the Spectrum, *Dragontorc*, *Quazatron* and *Astroclone*. We can only assume Hewson was rather chuffed at this point; in fact, the relationship was working nicely for both parties. "Hewson knew we could come up with the goods," explains Steve, "and they got more and more confident in us. We'd say how long we thought a game would take, and in the latter stages, they'd gear up the publicity. We'd go up there with a copy of the game, they'd seed an idea to a couple of magazines then pick ▶

TIMELINE

1983
- ST Software is formed by Steve Turner, and his friend, Andrew Braybrook, joins him. *3D Space Wars* sees action on the ZX Spectrum and Dragon 32.

1984
- **Steve and Andrew continue their *Seiddab* wars on the Spectrum and Dragon 32 respectively with *Lunattack* and *Seiddab Attack*. Arcade-style adventure game *Avalon* also stuns reviewers and fans alike.**

1985
- Andrew Braybrook gets hold of a Commodore 64. History beckons as his first game, *Gribbly's Day Out*, receives a warm reception, while Steve creates *Dragontorc* and sci-fi adventure *Astroclone*. Then, in the autumn, Graftgold unveils *Paradroid* – a game-changer.

1986
- **Andrew achieves the impossible by actually following-up *Paradroid*. The C64 shoot-'em-up *Uridium* is another massive hit while *Quazatron* is Steve's fantastic interpretation of *Paradroid*, developed for the Spectrum.**

1987
- While *Ranarama* mined the *Paradroid* concept further this year, it was the trials and tribulations of Hewson that occupied Graftgold into the new year. Its conversion of *Flying Shark* for Firebird established its abilities with its new publisher.

1988
- **Having migrated over to Firebird, legal wrangling delays the release of *Magnetron* and *Morpheus*. Dominic Robinson and John Cumming join from Hewson, and Gary Foreman also joins the team as Graftgold finally moves out of Steve Turner's house.**

1990
- More conversions arrive in the form of *Super Off Road* for Virgin and the exceptional *Rainbow Islands* for Ocean.

1991
- **The team begins to focus on 8-bit consoles and 16-bit computers with games such as *Simulcra* and *Realms*.**

1992
- Graftgold signs a deal with Renegade, the publishing arm of the Bitmap Brothers. The Andrew Braybrook-designed *Fire & Ice* is the first game it publishes.

1994
- ***Empire Soccer 94* sees action on the Amiga, but the SNES version fails to get past the proposal stage as development costs shoot up.**

1995
- Graftgold invests in expensive PlayStation development kits, sensing the console will be a success.

1996
- **Graftgold signs a deal with Perfect Entertainment whereupon the publisher takes majority control of the company. Between 1996 and 1998 Graftgold works away almost exclusively on the PlayStation title *Hardcorps*.**

1998
- With its regular monthly payment from Perfect Entertainment nowhere to be seen, Steve reluctantly calls time on Graftgold, leaving *Hardcorps* unreleased.

WHERE ARE THEY NOW?

STEVE TURNER

■ After a month of dismantling the office and cleaning down hard drives, Steve joined Andrew at insurance company Eurobase. Today he's retired, but remains a keen musician and has returned to coding with a new PC game. You can follow Steve on Twitter, @t2_steve.

ANDREW BRAYBROOK

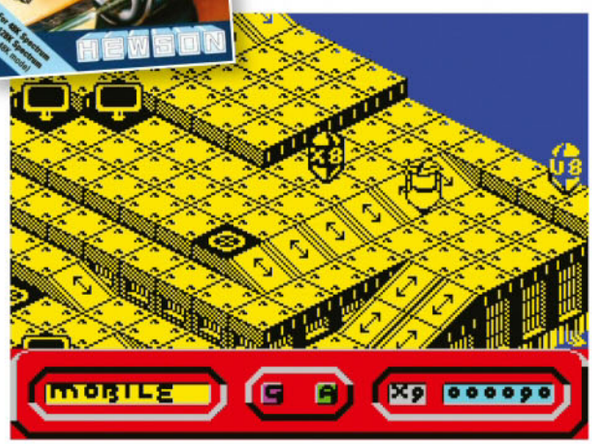
■ Post-Graftgold, Andrew found employ writing software for Chelmsford insurance company Eurobase. Today he's also developing another retro-themed game, and his progress can be followed on Twitter (@UridiumAuthor) and on his blog, uridiumauthor.blogspot.co.uk.

GARY FOREMAN

■ Keen to progress in the industry, Gary joined Sega Europe in 1992 before ending up at BMG Interactive by 1996. Then, in 1998 BMG sold its gaming division to Take-Two and he swapped London for New York. Later that year, the idea for a new publisher arose and Gary became cofounder and CTO of Rockstar Games. He left in 2006 to pursue other projects and explore the world.

DOMINIC ROBINSON

■ After Graftgold, Dominic headed up Software Engineering at Psygnosis, eventually finding his way to SN Systems, a company focused on creating development systems for Sony's consoles, in 2008.



» [ZX Spectrum] Inspired by similar games, Steve Turner introduced an isometric display for *Quazatron*.

one for an exclusive." The arrangement with Hewson gave Graftgold flexibility. There were no advances, just royalties, which meant even if it'd wanted to, the publisher didn't have much leverage to hassle its developer. "They were very good with royalties," Steve continues. "We'd get a monthly cheque and account of every sale made. It was good, because it meant we could find someone else to publish it if they didn't want it." Of course, Hewson never once exercised its right to reject Graftgold's games.

Yet with titles beginning to take longer to develop, Steve began to notice a shift in the market as early as 1986. Budget games were dominating, and Hewson suggested Graftgold produce smaller, quicker games that could be sold cheaply. Steve and Andrew resisted; they wanted to continue to create the premium original games that they considered their experience and skills warranted. "There were these arcade conversions that people used to rave about," laments Steve with a wave of his hand. "And they were nothing remotely like the arcade game, but because it was a name everyone bought them. That was taking the market away from original games." Graftgold's high standards began to take their toll, as it sought more ways to make its games stand out. "It was an increasing battle with the machines to eke something out," recalls Steve, "and we spent more time on things like making sure we had a name which people were going to remember. Titles such as *Ranarama*, which had a ring to it, and sounded like Banararama. Anything to make it stick."

As with many other publishers on the 8-bit computers, Hewson began to struggle in the late Eighties, despite its good reputation. Part of the issue was a reluctance to embrace the new 16-bit computers, at least with Graftgold. A 16-bit version of *Ranarama* was eventually commissioned, but little done with it beyond straight porting. John Cumming, who worked alongside Dominic Robinson at Hewson, redrew

DEFINING GAMES

3D SPACE WARS

■ The first game by Graftgold, and the first of Steve Turner's *Seiddab* quadrilogy, *3D Space Wars* was his attempt to not only bring arcade-style action to the Spectrum, but also another dimension. With 2D games rife, it was clear to the man behind ST Software that something different was required to stand out. The result was a 3D space shooter that, while eschewing any complexity or depth of plot beyond shoot the enemy invaders, eclipsed the majority of other Spectrum games in 1983. It was a notable start, and an easy game to sell thanks to its accessibility.

AVALON

■ Graftgold's games became quite rightly renowned for their immersive qualities, and this was the one that set the standard. Billed as an 'adventure movie', it didn't quite live up to that expansive boast, yet was still a very fine arcade-style adventure game, with the player's wizard wandering around an interactive maze that lived and breathed around them. At the time virtually unrivalled, *Avalon* remains a remarkably complex game that could only truly be appreciated after several hours of play. Steve followed it up with the equally fabulous *Dragontorc*.

RAINBOW ISLANDS

■ If ever a game demonstrated the publishing strife that seemed to dog Graftgold, it was *Rainbow Islands*. Commissioned by Mirrorsoft to convert the cute arcade game to multiple home platforms, its development was abruptly halted after the death of its owner, Robert Maxwell, led to the collapse of his publishing empire. Ever persistent, Steve Turner helped negotiate the return of the game with publisher Ocean Software. The Spectrum version, by David O'Connor and John Cumming, was a particularly fantastic conversion, despite the trials and tribulations behind its publication.

> **"We'd get a monthly cheque and account of every sale made"**
> Steve Turner

» [Amiga] Adrew Braybrook's cute-looking *Fire & Ice*, featuring Cool Coyote.

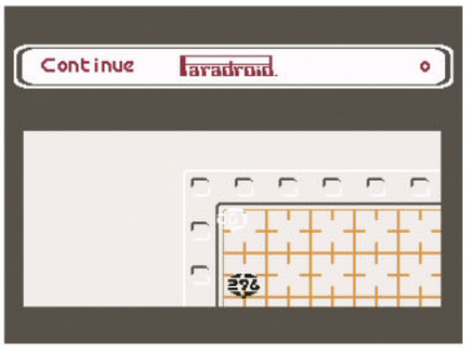
many of its graphics, but it remained a half-hearted effort. "Then one day I had a call from the marketing manager at Hewson," remembers Steve, the mood darkened not only by the approaching October night outside, but also events of late 1987 onwards. "She said, 'Look, if you stay with Hewson your games aren't going to get published.' We didn't know what to do. We weren't there, but we were speaking to people like Dominic and John, and the feedback we were getting wasn't good." Steve made the fateful call; the two games it had under development with Hewson were withdrawn. As usual, there was no advance investment from the publisher, and it was assumed Graftgold would be able to publish those two titles, *Quazatron* sequel *Magnetron*, and shoot-'em-up *Morpheus*, with another software house. Dominic, who had amazed everyone with his Spectrum conversion of *Uridium*, joined up with Steve and Andrew, along with John.

Graftgold followed Hewson's marketing manager to Telecomsoft (Firebird), and gave it *Magnetron* and *Morpheus* after a short legal consultation. Firebird was keen for the developer to work on 16-bit games. The stage appeared set for a new phase of the Graftgold story.

But Hewson did not collapse, and the company was rescued by a third-party, and eager to publish the two games it had been promised. The rights were fought in a court battle that, eventually, Telecomsoft won, but it was a pyrrhic victory. "No one really won," says Steve sadly. "It kept the games off the market for ages, and by the time they were published, it was too late. *Magnetron* was the first time I'd done a Spectrum and Commodore 64 version, which was really hard. I was quite demoralised at the prospect of it never getting published, which seemed likely at one stage." While Graftgold waited for the legal wrangle to be finalised, it moved to an office proper, located above a greengrocer's in Witham town centre. No more would the coders struggle to fulfil their all-important five-a-day, and the extra space allowed Dominic and John to relocate to Essex. "I had a lot of respect for Dominic, and we knew what he could to," says Steve. "John as well – we'd seen their games such as *Zynaps*, and knew they made a good team. Dom was also interested in developing on the 16-bit computers." Yet the new team's first task was an emergency 8-bit coding job from Firebird, who had the licence to produce home versions of the arcade shoot-'em-up *Flying Shark*. "It wasn't part of our

INSTANT EXPERT

- The ST of ST Software stood (predictably) for Steve Turner.
- **Steve Turner and Andrew Braybrook met in a local pub and initially bonded over their love of music.**
- Our conversation with Steve Turner revealed that he pronounces *Quazatron* 'kway-za-tron' rather than the generally assumed 'kwah-za-tron'.
- **Steve Turner's favourite Andrew Braybrook game is *Paradroid*. "I liked it as a game design, and tell people if you want to learn games, study *Paradroid*."**
- Andrew Braybrook's favourite Steve Turner game is *Astroclone*. "It impressed me the most because it was the first time we'd got double buffering going, so we weren't plotting and unplotting on the same screen at the same time."
- **At its peak, Graftgold employed almost 30 people.**
- Graftgold developed on a wide range of platforms including the Game Gear (*Superman: Man Of Steel*) and PC Engine.
- **Andrew and Steve initially shared a printer and would print off hundreds of pages of code. Many of these printouts reside in Andrew's loft at home.**
- The name *Uridium* came from a Graftgold employee who was trying to recall the element Iridium. The malapropism stuck.
- **Rescued from the demise of Mirrorsoft was Andrew's *Fire & Ice*, a cute platformer in the mould of *Sonic The Hedgehog*.**



PARADROID

■ What else can we say about *Paradroid* that hasn't been said before? It's one of the greatest games on the C64, a design classic and a hugely enjoyable shoot-'em-up that belies its somewhat plain visuals. Andrew Braybrook's attention to detail in creating a vibrant world resulted in much lavish praise, and it's still hard to resist the game's charms today. The meat and bones of *Paradroid* was its transfer minigame where the player could harvest robots of their prized elements. Correct manipulation of this was the key to conquering the renegade robots of the robofreighter fleets.

URIDIUM

■ Argument is often split between C64 owners as to Andrew Braybrook's finest hour, with most fans of shoot-'em-ups naturally nominating this fast-paced, smooth and refined game as their choice. The technical achievement remains immense: sprites don't flicker, despite moving at a breakneck pace, although slower play is recommended for those wishing to survive for more than a few seconds. Piloting the nifty Manta-class fighter (which could also perform a very satisfying loop and turn), the player's herculean task is to destroy 15 dreadnoughts threatening the solar system.

FLYING SHARK

■ Hewson's Dominic Robinson had proven himself as a capable programmer with the Spectrum conversion of *Uridium*. Soon after moving to Graftgold, Dominic's first job was a rushed Z80 conversion of this arcade conversion. No one expected much: Firebird's objective was just to produce something that would avoid potential licencing issues. That Dominic produced a superb shoot-'em-up that swiftly became a classic for the Spectrum in particular, was a huge bonus for the publisher, and also Graftgold, which earned its spurs as a master of the quick conversion.

THE DNA OF GRAFTGOLD

ORIGINALITY

■ Despite forging a good reputation for conversions in its latter years, this remained a means to an end in providing funds for Graftgold's original games, of which Andrew and Steve were there at the forefront. From *Paradroid* to *Simulcra*, unique ideas were always treasured and encouraged at the company.

ADAPTABILITY

■ Even from its very early days, Graftgold realised that in order to succeed it needed multiple platforms, of which, in 1983, the likely rival to the Spectrum was unclear. Hence its catalogue of Dragon 32 games, followed by a wait before its eventual backing of the Commodore 64. Graftgold's games were designed to each platform's strengths.

EXPERIENCE

■ With a background in computers and business programming, both Steve and Andrew arrived in the world of videogames creation with many of the required skills and techniques already learned. This enabled them to bounce ideas off each other as they were both already familiar with the terms and concepts involved in games creation.

GRAND DESIGNS

■ Original Graftgold games rarely lacked ideas and each concept was fully examined before inclusion. Often it would mimic its own design successes (hence *Quazatron* and *Ranarama*, both based upon *Paradroid* to different degrees), but there was always an angle, and new elements added to the base concept, plus that all-important attention to detail.

IMMERSIVE WORLDS

■ Steve and Andrew saw that there was no way they could combat the technically superior arcade games, except when it came to depth of story and quality of game design that drew the player in. Prime examples are the *Avalon* series on the Spectrum and *Paradroid* on the Commodore 64.

MULTITASKING

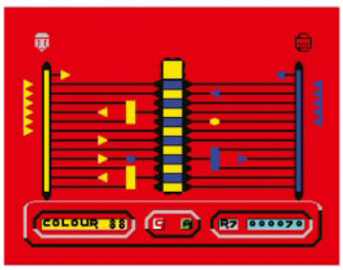
■ Despite the pressures of running a company employing almost 30 people at its peak, Steve Turner never shied away from pitching in, usually taking on the role of 'firefighter' when a project went wrong or overran.

"It didn't feel like a job at all. The weekends were actually a hindrance because I couldn't come to work"

Andrew Braybrook

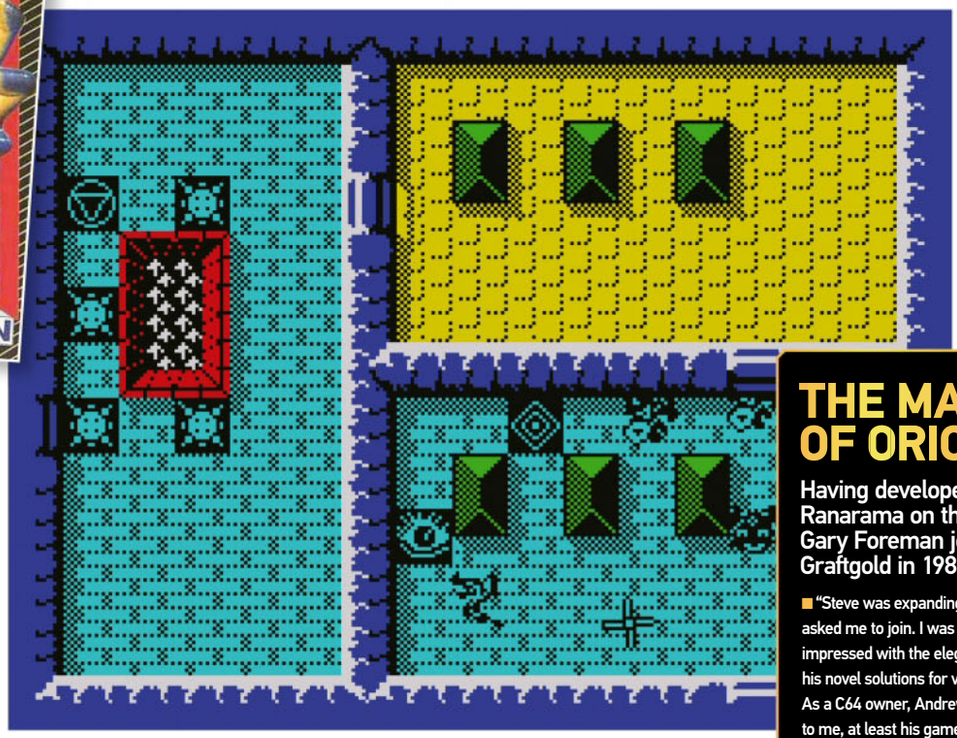
original deal," says Steve, "but they'd been let down on the Spectrum and Amstrad versions, and were going to default unless they produced them in six weeks." Graftgold accepted the job and Dominic completed the Spectrum version swiftly, with Steve converting the game to the Amstrad shortly after. "We brought it in on time, and it got us a lot of kudos. Firebird would have accepted a much lower quality as they just wanted something that looked vaguely like the arcade game to stave off the lawyers." Graftgold now had another string to its bow – the reputation of being able to create highly competent arcade conversions within strict deadlines.

Joining the team a few months later were Gary Foreman, who had already written the Commodore 64 version of *Ranarama* as a freelancer, David O'Connor from Dublin and 16-year-old YTS trainee Jason Page, who would eventually become Graftgold's go-to sound guy. Meanwhile, Andrew was working on *Intensity*, a one-screen game that, aesthetically, appeared similar to *Uridium*. "It's more of a puzzle game, though," explains Andrew, "and I couldn't have scrolled it anyway as the sprite multiplexer was skinning the CPU." Unlike *Uridium*, *Intensity* contained no shooting. "I think possibly people were disappointed in that. But in general everybody was losing interest in the Commodore 64 anyway." The following year, Steve Turner created *Bushido Way Of The Warrior* for Firebird, a Commodore 64 game that introduced several new gameplay elements such as dynamic sound and sprite multiplexing.



» [ZX Spectrum] The *Paradroid/ Quazatron* minigame was a large part of games' appeal.

Graftgold had swollen to a dozen employees, all working on multiple projects for various publishers. "We were firing on all cylinders as a team," sas Steve. "I wasn't keen on doing licences but we wanted to do original stuff, and licensed games brought in the money." *Super Off Road* followed in 1990 for Virgin Games, as did *Rainbow Islands*. Development on the latter was elongated thanks to its original publisher, Mirrorsoft, going bankrupt in the wake of owner Robert Maxwell's death. The delay demoralised the team, although the licence was eventually picked up by Ocean, thanks in part to Steve's persistence. Simultaneously, Steve was coding the expansive strategy title *Realms* for



» [ZX Spectrum] *Ranarama* took the template of *Paradroid*, yet was unfairly accused of being a *Gauntlet* clone by a lot of the press at the time.

Activision. When Activision sold out to Acclaim, *Realms* hung in the air, publisherless. Virgin stepped in to ensure the game was released, as Firebird/Telecomsoft was also bought out, by another American company, Microprose. It was an incredibly tumultuous time, as Steve recalls painfully. "I always had around three publishers on the go – they were falling like ninepins."

However, having developed the Sega Mega Drive conversion of *Gods* for the Bitmap Brothers, Graftgold signed a deal with its publishing division, *Renegade*. "Their thing was profit-sharing," explains Steve. "So the deal was, you came up with a development amount which you had in advance and they come up with a publishing and manufacturing cost off all the revenue that came in. It was then split 50/50, and the amount for development cost was far more than we'd ever had in advances. So we went for it." *Fire & Ice*, *Uridium 2* and *Virocop* were all published on the Amiga chiefly, as Graftgold committed firmly to 16-bit development. But with a bigger team and games, larger overheads and greater pressures arrived. A SNES version of *Euro 94* failed when its publisher, Empire Interactive, baulked at the advance costs demanded by Nintendo. Instead of the six months it took Andrew Braybrook to code *Paradroid* and *Uridium*, games were taking one or two years to reach fruition. When the Amiga disappeared as a viable platform, the odds began to stack up. Nevertheless, the deal with Renegade continued, and Steve invested in several expensive PlayStation dev kits, believing the machine to have potential. Its first game was *International Moto X*, but a succession of further buyouts (Renegade was acquired by Time Warner, which then sold its games division to GT Interactive) meant that despite solid sales, royalties were nowhere to be seen. The result: by the end of 1996, Graftgold was out of money.

Salvation came in the form of Perfect Entertainment which bought a majority stake after a chance phone call looking for games to develop. Work on the PlayStation game *Hardcorps* began, but from the beginning, cracks began to appear in the relationship, It was apparent Perfect's focus lay elsewhere. "It lasted until about 1998," remembers Steve sadly. "Then the wages didn't arrive one month. They strung us along for six weeks before telling us they wouldn't be paying any more and we had to carry on the best we could. I think they expected me to borrow money against my house or something, but I phoned a receiver and they said wouldn't do anything." As managing director, Steve was flat broke, taking his salary after everyone else during the troubled times. Still at Graftgold was his friend, Andrew Braybrook, who had remained there through both good and bad times. "I got a job in Chelmsford, in insurance software," says Andrew. "It was a small pay rise and they knew how good games programmers we'd been, so when I suggested they hire Steve too, they had little hesitation." To both men, after the stresses of the final few years of Graftgold, a steady paycheck was something of a relief.

Despite the febrile nature of the Eighties, it remains both men's favourite era for Graftgold. "I really liked the late Eighties," says Steve. "Andrew was doing *Paradroid 90*, Dominic was doing *Simulcra* and it was a golden period for the company. It didn't last long; people became disillusioned when their work got canned, and we soon had a lot of staff changes as a result." For Andrew, the period a few years earlier is a time he treasures. "We were on a roll. *Gribbly's*, *Paradroid*, *Quazatron*. We were getting it all working with cross-assemblers on PC, rather than waiting for the 1541 drive. It was just a fearless time…" Andrew pauses; after musing on the history of Graftgold for over two hours, it's clear he doesn't regret one moment of his time spent working there. "It was the best job in the world," he smiles. "In fact it didn't feel like a job at all. The weekends were actually a hindrance because I couldn't come to work!"

It's dark outside as we bid the two legends of their respective machines goodbye. They're heading to the pub; maybe the same one where they first met. We'd like to think so. *

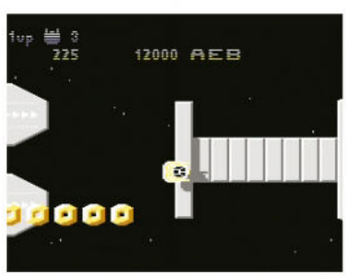
Our thanks to Steve Turner, Andrew Braybrook and Gary Foreman for their time.

THE MASTER OF ORION

Having developed Ranarama on the C64, Gary Foreman joined Graftgold in 1988

■ "Steve was expanding the team and asked me to join. I was immediately impressed with the elegant design and his novel solutions for various problems. As a C64 owner, Andrew was well known to me, at least his games were. The first office was an old Tudor-style building, over a fruit-and-veg shop – read that as: the floors weren't level and it wasn't as spacious as you'd like. I started by finishing my game called *Orion*, and then helped Steve with *Bushido*. We started work on *Rainbow Islands* and I was entrusted with the Commodore 64 version, with John [Cumming] supporting on graphics and Jason [Page] on sound. I also helped with *Realms* and even spent some time on the PC Engine. It was a game based on Andrew's Amiga/ST version of *Paradroid* and was never quite finished for reasons nothing to do with Graftgold. My final project was a conversion of the Bitmap Brothers game *Gods* to the Mega Drive. It was an incredible experience working there – I learned so much about the art of making games, and the attention to detail was one of the things that struck me most and something that, to this day, is a huge driver for me in whatever I'm doing."

» [Amiga] *Simulcra* was one of Graftgold's early entries into the 16-bit era, coded by Dominic Robinson.



» [C64] Chased by flying doughnuts in Andrew Braybrook's classic, *Uridium*.

Atari CX40 Fact

■ An image of the Atari 2600 joystick was part of the original **Retro Gamer** logo used from 2004-2005, which can still be seen on the collected spines of the magazine today.

Atari CX40

» **PLATFORM:** ATARI 2600 » **RELEASED:** 1978
» **COST:** £7.30 (1978, BOXED), £10 (TODAY, UNBOXED)

Steve Bristow's Atari CX10 joystick is a classic piece of design – it has an iconic shape and is simple enough that anybody in the family can understand it. Hold the base with your left hand, and move the stick with your right hand to direct your character. The only problem was that it wasn't the cheapest item to produce in bulk, due to its complex construction. James Asher would soon solve that problem with an updated design, which replaced springs and other metal components with plastic, and the CX40 replaced the CX10 as the default joystick controller for Atari 2600 consoles after just one year. The controller remained popular for many years afterwards, as it was also the default controller for and the Atari joystick port had been widely adopted by other machines.

Over the years, a number of common faults have been identified with the CX40 design. The rubber boot that covers the joystick can harden and tear over time, and the plastic ring which keeps the boot attached is known to break. The internal PCB can also suffer from problems including the failure of the clear tape which covers the dome contacts for the stick, and fatigue on the contacts. Thankfully, Atari community members have developed replacement parts for these ageing devices. ✱

ESSENTIAL GAME

River Raid

Many Atari 2600 games made full use of the CX40 joystick, so we're just going to pick a favourite – and Carol Shaw's smash hit shoot-'em-up is definitely one of our favourites. There's nothing fancy about how the stick is used here, but we like the extra tactical wrinkles, such as holding down to fly slowly over fuel refills or pushing up to speed past a helicopter. It doesn't even benefit from the autofire functions of third-party alternatives. *River Raid* is just an extremely well crafted game, and one which instantly makes us think of holding that distinctive joystick whenever we see it.

Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED

FOOTBALL GAMES

Old football games are sadly often treated like the waste of the retro gaming world. However, Kim Justice is here to make you think again with some classic hidden footie game tekkers from the bargain bin

» [PS2] The usual result of a challenge in *Red Card*. Beckham stands away and acts like he didn't just annihilate the poor Algerian player.

» [PS2] Dolphins have some pretty fancy tricks up their sleeve, as *Free Willy* demonstrates. Is 'scorpion kick' really the correct term here?

REDCARD

■ PLATFORM: **PS2** ■ DEVELOPER: **MIDWAY** ■ YEAR: **2002**

■ On a typically miserable Saturday afternoon in the Eighties, Wimbledon midfielder and hardman Vinnie Jones expressed his frustrations over trying to man-mark Newcastle's then-wunderkind Paul Gascoigne in an altogether undelicate manner – by giving his private parts a bit of a twist, much to Gazza's immediate displeasure. This moment was then captured on photo for all to see, tut at, or put up on their wall. That Midway would choose to recreate this iconic ball grab for the cover of the magnificent *RedCard* speaks volumes as to what the game's all about.

RedCard is a game in a similar vein to classic Midway arcade sports titles of old that did away with the rules in order to provide maximum entertainment – it does for football what *Arch Rivals* and *Pigskin 621 AD* did for basketball and rugby respectively. Nothing is off-limits – two-footed tackles, violent headbutts, even a kung-fu-style roundhouse kick can be deployed in order to take the ball off of your opponent, and all that will happen is that Chris Kamara on commentary will tell your victim to get up. Needless to say that whatever you do to the opposition will be paid back in kind, so it's a good idea to master the acrobatic jumps and dodges that you have at your disposal in order to avoid any homicidal lunges aimed in your direction.

Like a lot of retro footy games, *RedCard* is all about the power bar – however, this one expands slowly over time, giving you more options for both crunching tackles and the all-important super shots that are the best way to score. Naturally, the best way to increase the bar is through violence. Hell, you can even smash the ref if you feel like he's giving too many decisions the opposition's way – forget about glasses, he'll need a new hip. Master all of this and you can take on the conquest mode, which gets quite odd quickly as regular teams are replaced by the likes of dolphins, SWAT and seals who are quite shockingly good at football.

Perhaps what's strangest of all is that despite not exactly representing the desired image of the beautiful game, *RedCard* does come with plenty of official licences, which perhaps speaks to the era it was born in. You'd certainly never see David Beckham fling his head into the solar plexus of an opponent in the latest *FIFA*, but you sure as

IF YOU LIKE THIS TRY...

ARCH RIVALS

ARCADE, 1989

■ It all started here for Bally Midway with this 1989 arcade classic, which improves the sport of basketball by offering you the chance to punch unsuspecting opponents full on in the face. It's a rough-and-tumble two-on-two throwdown that eats 10p's up like Pac-Man, and *RedCard* wouldn't exist without it.

PIGSKIN 621 AD

ARCADE, 1990

■ One year later, Midway took the sport of rugby, transported it to medieval times, added a few horns, axes and swords to the mix and gave us this tribute to foul play. If you're leaving swords on the floor and not in an opponent's back, you're not doing it right. *Pigskin 621 AD* can also be found on the Mega Drive.

MUTANT LEAGUE HOCKEY

MEGA DRIVE, 1994

■ EA's NHL games were already pretty great, but the addition of mutations just made them even better. Flagrantly hacking your opponent down with a sharp stick or checking them into a pit of icy death is never not fun, and the brilliant hockey engine underneath it all makes this a stone-cold classic.

» [PS2] More blind, ugly violence. If Alan Partridge were commentating on this game, he'd be chucking up football pie all over his face.

hell can do it here. And despite all of the fun, the football itself is great – fast-paced and high-scoring, with ridiculous goals flying in from every angle and no shortage of craziness happening in every section of the pitch… it's fun enough against the computer, but with a fellow bloody-minded humanoid it's a riot. *RedCard* carries on the tradition of Midway arcade classics that came before it only in 3D – it's just as fun as the likes of *NBA Jam*, and it's likely available down your local CEX for the princely sum of 75p. If all of this sounds like your thing, then you ought to lace up your boots, put your metal shinpads on, make sure you're cupped and dribble your way down to your local retro shop and grab it right now.

IN DEPTH

STUDS UP

■ The bigger the streak coming out the back of the player, the nastier the challenge is. This Brazilian player demonstrates this by murdering Ecco with a sickening roundhouse kick.

I GAVE YOU POWER

■ *RedCard*'s special meter is powered through both fine play and violence. When it's full, it's time to rush into the area and do a super shot.

LIQUID FOOTBALL

■ Some may say it's cruel to put dolphins onto a pitch and make them play football, but these hard-finned mammals disagree. Given half a chance, they'll rip your eyes out.

SONIC BOOM

■ Sprinting is an important part of the game if you don't want to get your face broken, and it's controlled with the turbo meter. A special dash can leave Usain Bolt in the dust.

Minority Report

ULTIMATE SOCCER

■ PLATFORM: **MEGA DRIVE** ■ PUBLISHER: **RAGE SOFTWARE** ■ YEAR: **1993**

■ **Back in the 16-bit era of videogaming, Rage Software was rather well known for its *Striker* series of football games on the SNES and Amiga – they also certainly featured on *Gamesmaster* quite a lot.** *Ultimate Soccer* is the original Mega Drive version of said game, and there's several reasons why it sticks out in a way that the franchise's other games perhaps don't.

One joy that has sadly been lost in today's football games is the art of six-a-side indoor footie – since the death of *FIFA Street*, you just don't see it anymore. *Ultimate Soccer* captures it perfectly and understands that there's nothing better than beating opponents by bouncing the ball off the wall and then smashing it in from 30 yards. The customisation options also help – setting the ball control to loose and the ball itself to lighter than air can make for some quite ridiculous goals, which is another great joy of old footie games.

When you play *Ultimate Soccer*, you can expect to score many blistering goals – as the F2 would put it, 'It's all about the swaz tekkers.' There's nothing stopping you from blasting in a free kick from the halfway line, or curling one in from the corner flag – and with a bit of practice you can do it on the regular pitch too, where you can also add hurricane winds for even more ludicrous whippage. With only a couple of buttons required for total control, the end result is a simple, *Sensi*-esque game of football that gets exactly what the people want – sometimes you just want to kick back and send the ball into space off an opponent's head, take it down perfectly and score a screamer. Football games don't need to be more complex than that.

» [Mega Drive] A shot from the edge of the area is about to curl past this sorry keeper. It was heading to the flag before aftertouch kicked in.

» [Mega Drive] Outdoor modes do also exist in the game. With the wind as it is, it's not just possible to score from a corner, it's pretty easy.

MORE GAMES TO PLAY

» LIBERO GRANDE

■ DEVELOPER: **KONAMI**
■ PLATFORM: **PLAYSTATION** ■ YEAR: **1997**

■ The father of *FIFA*'s Be A Pro mode that allows you to control one player in a team and go do the business for yourself. The slightly dumb AI that can barely shoot and pass to each other without your commands is made up for by how physical and crunching the action is, and how satisfying it is to actually get the ball into the onion. Any game that allows you to play as the legendarily coiffured Carlos Valderrama is onto a winner.

» OLYMPIC SOCCER

■ DEVELOPER: **US GOLD**
■ PLATFORM: **PLAYSTATION** ■ YEAR: **1996**

■ This isn't a particularly good game – the graphics are ugly, the gameplay shoddy and Alan Green's commentary is a joke. But *Olympic Soccer* deserves mention simply because it's the only game where it's easier to score from the halfway line than it is to score inside the box. You can juggle the ball with bicycle kicks, too, or head it in from the edge of the area. It's footballing insanity where the low quality doesn't matter.

» TOTAL FOOTBALL

■ DEVELOPER: **DOMARK**
■ PLATFORM: **AMIGA** ■ YEAR: **1996**

■ A late Amiga game that in many ways tried to emulate *FIFA*, *Total Football* didn't do a bad job – it had the physicality and slower simulation of footy down, while also having strange quirks like really long goal celebrations. As much as footy on the Amiga is dominated by the faster top-down likes of *Sensible Soccer* and *Kick Off*, *Total Football* is one of the better alternatives on the computer if you're utterly desperate for isometric.

» PETER SHILTON'S HANDBALL MARADONA

■ DEVELOPER: **GRANDSLAM**
■ PLATFORM: **ZX SPECTRUM** ■ YEAR: **1986**

■ This was called *Peter Shilton's Football* until the infamous Hand Of God incident at the World Cup made Grandslam cash in. This is that rarest of all birds: a goalkeeping simulator, where the opposition runs through various shooting drills, you have to try and stop the ball and you can take skill tests to unlock tougher plays as the game goes on. Not a long game, but it is certainly a unique title.

PREMIER MANAGER 3

■ PLATFORM: **AMIGA** ■ PUBLISHER: **GREMLIN** ■ YEAR: **1994**

■ **There had to be at least one football management game here, and *Premier Manager 3* on the Amiga is as good as any.** Some may balk at the idea of playing a 20-plus-year-old footy manny game in which all the players have retired and some of the teams aren't even around anymore, but you should make an exception for this one. *Premier Manager 3* isn't so much about football as it is about an underdog's journey from the bottom.

The brilliance of *Premier Manager 3* is that it forces you to start in what was then the Conference – you can't just pick Manchester United and destroy everyone. Instead, your goal is to take the likes of Halifax Town or Kidderminster Harriers to the top, or at the least use them as a springboard for better jobs in the higher leagues. You get somewhat attached to these teams as they grow through smart tactics, player growth, or even by cheating using the phone numbers, and it's such a refreshing change from what usually happens if you pick a great team from the off.

Premier Manager 3 comes from an age where footy manny games had the balance absolutely spot-on – all the crucial options are there, but it's quick and not overstuffed. Seasons take hours, not weeks, and you don't have to micromanage every player in the meeting room. It's a game of simple purity, but one that provides stories of epic proportions.

"PM3 comes from an age where footy games had the balance spot-on"

» [Amiga] You can control the sponsor boards in *PM3* and fill them up with as many old computer mags as you want. Shoutouts to *Amiga Format*.

RETRO STINKER

» 4-4-2 SOCCER

■ PLAYSTATION ■ VIRGIN ■ 1997

■ Having a ton of teams doesn't make up for being able to walk the ball into the goal every time, or simply sitting the controller down and watching the CPU fail at scoring. Atrocious in every way.

» EMLYN HUGHES INTERNATIONAL SOCCER

■ DEVELOPER: **AUDIOGENIC**
■ PLATFORM: **AMIGA** ■ YEAR: **1990**

■ A bridge between 8-bit games, such as *Match Day,* and the more realistic affairs to come, this was certainly the most complex footy game around on its original C64 release. While there was more competition around for this later Amiga version, the game still holds its own – the action is fun enough to make it one of the best classic football games there's ever been.

» FEVER PITCH SOCCER

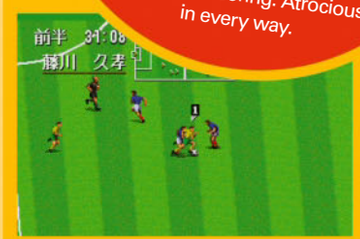
■ DEVELOPER: **US GOLD**
■ PLATFORM: **SNES** ■ YEAR: **1995**

■ Another footie game where rules aren't important – you can body check, clothesline and bite the legs of opponents to your heart's content with little risk. *Fever Pitch* also features plenty of 'aces' – big burly defenders, classy Europeans who can curl the ball like a banana, and wingbacks who've got the ball glued to their feet. A solid arcade/sim hybrid that didn't get enough attention.

» ACTUA SOCCER 3

■ DEVELOPER: **GREMLIN**
■ PLATFORM: **PLAYSTATION** ■ YEAR: **1998**

■ At one point, the relatively tiny *Actua* was taking on the almighty *FIFA* and winning. EA had redressed the balance by 1998, but this third instalment is still the best of the franchise – it may not be a trailblazer, but it's incredibly playable. Also includes the much missed silly codes to make the players fat, flat, or skeletal, amongst many others. Undoubtedly one of the best PSone footy games outside of the *FIFA*/*ISS* duopoly.



» J-LEAGUE PROSTRIKER FINAL STAGE

■ DEVELOPER: **SEGA**
■ PLATFORM: **MEGA DRIVE** ■ YEAR: **1995**

■ This Japanese-only title was one of the last new footie efforts on the Mega Drive before it delivered nothing but *FIFA* updates in its twilight years. It deals in fast paced action, and is probably the closest you can get to arcade classics like *Football Champ* on the system. Once you're through the menus you too can take the Kashima Antlers on a road to glory. Marvellous.

Gate Of Thunder

I HEAR THUNDER, BUT THERE'S NO RAIN

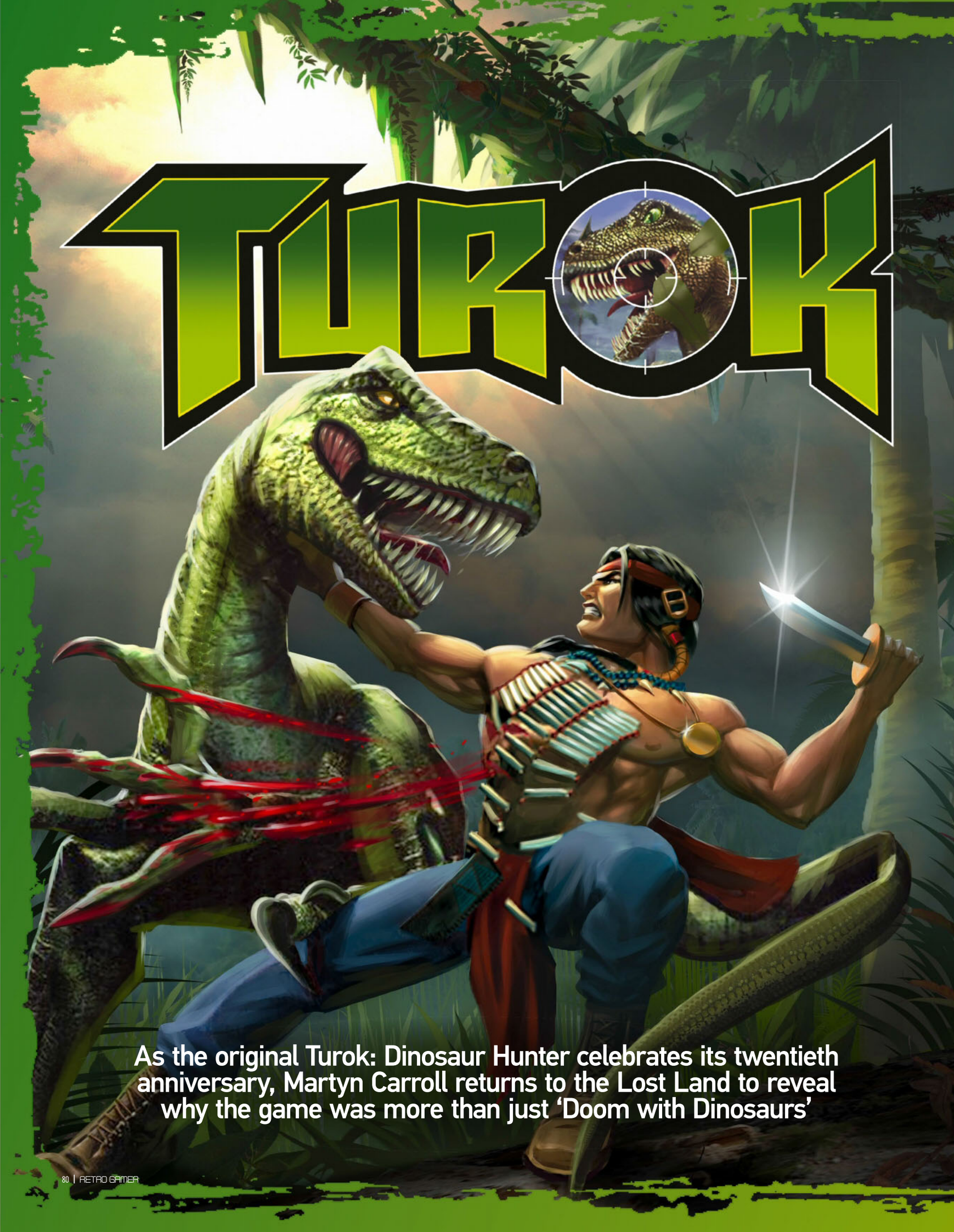
» RETROREVIVAL

» PC ENGINE » HUDSON SOFT/RED ENTERTAINMENT » 1992

How often do you fall in love with a game at first sight these days? It still happens to me every now and again – *Sonic Mania* was one recent instance – but it becomes less common as I grow older and more jaded. For every new game that eventually lives up to the hype, there's a *No Man's Sky* that seems like it'll be amazing and winds up underwhelming. More often, I find that I'm discovering old games for the first time and instantly being bowled over, and *Gate Of Thunder* was one that had that effect on me.

It takes something special for a PC Engine shoot-'em-up to stand out from the crowd, but this Super CD-ROM² game manages it. The game starts off with a battle underneath a gigantic spaceship and proceeds through enemy bases and collapsing caverns, with a suitably challenging assault provided by carrier ships, snake-like enemies and more. The intense action is matched with an incredible level of polish – the hard rock soundtrack adds to the action and the parallax effects make for dynamic backgrounds of a quality rarely seen on NEC's tiny console.

After playing it for the first time, I knew I had to upgrade to the CD system, and eventually sold off my Turbografx gear for PC Engine hardware in order to make that easier. It's easy to see why it was packaged with the TurboDuo in North America – it's the kind of game that has the power to shift hardware, even today.



As the original Turok: Dinosaur Hunter celebrates its twentieth anniversary, Martyn Carroll returns to the Lost Land to reveal why the game was more than just 'Doom with Dinosaurs'

» [N64] The automatic shotgun in action, probably the best all-round weapon in the game.

"The game came along at just the right time, at the beginning of the console's life"

***Turok* means different things to different people. For fans of comic books it's a slightly obscure series that's been running intermittently for more than 60 years, where Turok is a Native American man battling prehistoric creatures that have slipped through the cracks of time.** For gamers it's a series of popular videogames loosely based on the comic, published between 1997 and 2008, primarily by Acclaim Entertainment. For gaming historians it's the hit series that gave Acclaim a much needed financial boost when it was struggling following a period of expansion and diversification in the mid-Nineties (which included buying up Valiant Comics, the publisher of *Turok*).

» [N64] Explosive arrowheads give the bow a whole new level of effectiveness.

Yet for Nintendo fans, and owners of the N64 in particular, *Turok* was something much more. The core series of 3D shooters was multiformat, but the first four titles were N64 console exclusives and as such the series is indelibly linked to the Nintendo machine. Crucially, the first game came along at just the right time, at the beginning of the console's life when there was a dearth of software available, decent or otherwise. In Acclaim's native US the game was due to launch alongside the N64 in September 1996, but was delayed until January and then slipped further to March, giving N64 owners an anxious wait for the system's only out-and-out shooter. It released in Europe at the same time, which due to the staggered roll-out of the N64 meant that it arrived just days after the console and its three launch games – the classic *Super Mario 64*, the very good *Pilotwings 64* and the so-so *Star Wars: Shadows of the Empire*.

In both regions, *Turok* was the perfect addition to the line-up. Technically it was very impressive, with the FPS gameplay showcasing the 3D potential of the new system. The depth of view was limited, obscured by the infamous 'fog' that enveloped Turok's world, but it was less jarring than sudden pop-up and it enabled the game to present big open spaces. Not only did *Turok* demonstrate the visual prowess of the N64 (and if you'd just paid a premium to own "The fastest move powerful games console on Earth" then you sure as hell wanted games to ▶

DEVELOPER Q&A

Nigel Cook, creative director at Iguana Entertainment, looks back at the development of the original Turok

How did you get involved with *Turok*?
Iguana Entertainment was bought by Acclaim along with other acquisitions including a small Manhattan comic company called Valiant Comics. The goal was to develop a game based on one of the comic universes that would utilise our proprietary N64 tools and tech. The *Turok* comic introduced a Native American warrior trapped in a lost valley fighting off dinosaurs. We knew instantly this was the one to develop.

We've heard that people were 'blown away' by the early demos...
The team knew we had something special during early prototyping. I recall everyone's reactions when they moved through the jungle, toting a bow and arrow, feeling like a hunter, then from out of the mist an axe-wielding warrior darted towards them! Everyone loved it.

Whose idea was the hub system?
Producer David Dienstbier was a creative force on the game. He invented the hub system to have a meta game mechanic that bound all the locations together for a big build-up to the end of the game.

The graphics were praised but not the fogging. Were you aware of this during development?
Fogging was discussed more times during developing than any other content. Due to technical restrictions we had to balance the amount of on-screen geometry versus distance. We felt that fog within a jungle environment could be a misty atmosphere and allow us to focus more graphical detail in the vicinity of the player. In the end it was an off-putting graphical feature for many players. Everyone wished it could have been pushed back more.

Was there anything that disappointed you about the game?
The fog of course and some players had a difficult time in the platform jumping areas. I wish we could have removed some of them and made them easier.

Why was it only released on the N64 (and PC)? Were there plans to release it on other platforms?
Iguana had prior successful titles on Nintendo platforms. The PC version was a conversion and we had no plans to develop on other platforms for a simultaneous release. The team was a minuscule 18 people who focused all of their talents towards N64 console games of that era.

What do you think about *Turok* making a comeback with the recent remastered version?
It's wonderful to see the resurgence and interest in the *Turok* universe. I am very excited to see the path it takes in the future. I think it's time to make dinosaurs extinct again.

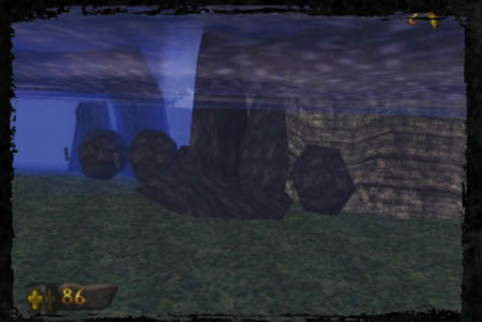
» [N64] The platforming sections of *Turok* do let it down somewhat. Time a jump wrongly and you'll plummet to your death..

"Turok was a violent game with plenty of the red stuff on show"

justify that purchase), but it also proved that third-parties could exploit the power of the new console as ably as Nintendo.

Another crucial element was the game's gore score. It seems laughably tame these days but *Turok* was a violent game with plenty of the red stuff on show. Nintendo was obviously keen to close the door on the SNES era where it regularly censored 'unsuitable' content in certain regions. Acclaim had experienced Nintendo's meddling previously – witness the bloodless version of *Mortal Kombat* for the SNES – but with *Turok* there was no intervention from the platform holder. Accordingly, the game was rated 'Mature' in the US and received a '15' rating in the UK (the blood was removed from the German version but that was down to the authorities and had nothing to do with Nintendo). With bloody games like *Loaded* and *Resident Evil* readily available for the PlayStation and Saturn it was important that the N64 wasn't viewed as the 'kiddie' console, and *Turok* helped greatly in that respect.

» [N64] Enemies don't look too great close up, but when animated in game they're pretty effective.



» [N64] Swimming is great fun – until you meet amphibious enemies and find that you can only use your knife underwater.

But there was more to the game than snazzy visuals and splashy violence. It wasn't a straight-up corridor shooter either. *Turok* was an action adventure title where the emphasis was on exploration, and that involved running, jumping, climbing and swimming. Hidden within each vast level were keys which unlocked further levels and some keys were easily missed so you really had to search. You faced many deadly foes, yes, and there was an arsenal of over-the-top weapons with which to kill them, but finding the keys was the main objective. And this task was largely entertaining, spoilt only by too many tricky platforming sections where one misplaced jump often led to instant death and a trip back to the last checkpoint (of which there were far too few).

PERFECT POLYGONS

The enemies and creatures that feature on Turok's kill-list

PLAYING TIPS

How to become history's greatest Dinosaur Hunter

FOLLOW THE FORCE

■ When you get lost look for the yellow life force triangles as these will show you the direction to head. As an added bonus, scoop up 100 and you'll earn yourself an extra life.

CLIMB THE VINES

■ Pick-ups and sometimes keys are hidden high up, so look for climbable walls. Even if you can't see vines, if a wall looks slightly different you may be able to scale it.

CONSERVE AMMO

■ Save your arrows and bullets by using your knife to dispatch dragonflies and beetles. If you're quick you can use the knife to defeat poachers and even small leapers.

GET GAME

■ This is not a conservation exercise. Kill the deer and boars to receive items. Hitting them with the shotgun rewards the biggest bonus.

CHECK THE MAP

■ The automap is one of the game's most useful features. It's great for uncovering secret areas and helpful when performing jumps as you can see where platforms are.

START A FIGHT

■ Enemies of different species will fight each other, saving you effort and ammo. Try luring raptors in the direction of a purlin then slip away quietly when it all kicks off!

CONSTRUCT THE CHRONOSCEPTER

■ Collecting the eight pieces of the Chronoscepter supergun is not compulsory, yet it's almost impossible to beat the final boss (the Campaigner) without it.

CHEATS ALWAYS PROSPER

■ Turok is a tough game, so if you can't beat it, cheat it. The cheat code NTHGTHDGDCRTDTRK it unlocks every weapon and key plus unlimited health and ammo.

Something the game did very well was creating an immersive atmosphere. A nearby roar or screech would see you backing nervously out of area, weapon brandished. And the fogging, which was a technical limitation, served to heighten tension as enemies often emerged from the fog and surprised you. Perhaps it *was* dense jungle mist all along.

On release *Turok* was a critical hit in many countries, receiving strong reviews from many publications. The UK's *Nintendo Magazine* raved over it, calling it "a remarkable achievement" and claiming that it was better than Quake. That was hardly surprising coming from the official Nintendo mag, yet *Turok* and the seminal *Super Mario 64* both received the exact same score in the March 1997 issue – 95%. "At the moment this is the other main reason, aside from *Mario*, to get an N64," the review concluded. *C&VG* also drew favourable comparisons to the *Mario* game in its 5/5 review, calling *Turok* "a completely engrossing and challenging 3D action game. You've finally got a second reason to buy that Nintendo 64".

» [N64] Yeah *Tomb Raider* also had a t-rex, but did that one spit fire and shoot lasers from its head?

» [N64] You can't miss the first level key. Unfortunately, the later ones are not so easily found…

Whether *Turok* was a system seller is difficult to say, but the game itself certainly sold well, shifting a reported 1.5 million copies. It may have sold even more had Acclaim not blatantly tried to exploit the N64's scant software line-up by ramping up the game's price – its RRP was a hefty £70 in the UK, which was £10 more than *Super Mario 64* and £15 more than most other third-party releases. It soon dropped to £40, which was a far more suitable price. Cannily, Acclaim licensed a whole bunch of *Turok* merchandise, with the usual action figures, clothing lines and tie-in novels appearing. The game was also converted to the PC in late 1997 and a 2D Game Boy offshoot (brilliantly subtitled *Battle Of The Bionosaurs*) was also released.

Sequels followed like that flock of Gallimimus in Jurassic Park. *Turok 2* arrived in 1998, introducing a deathmatch mode that was a necessity following the success of Rare's *Goldeneye*. Multiplayer spin-off

TUROK SEQUELS

Turok was not about to slip quietly into the night after his first quest...

TUROK 2: SEEDS OF EVIL

N64 1998

■ The sequel didn't so much reheat the original as serve up an extra-large second helping. There were new weapons with more exaggerated (and gory) effects, larger levels with more variation in design and appearance, and additional enemies with greater intelligence, leading to some entertaining skirmishes. The visuals were also refined, particularly if you plugged in the resolution-boosting Expansion Pak (although this could affect the frame-rate during hectic moments).

TUROK: RAGE WARS

N64 1999

■ The second game's multiplayer modes were popular enough to convince Acclaim to put out this stop-gap release that ditched the single-player game entirely (well you could battle against bots on your own but there was barely any fun in that). This was designed for competitive play between two-to-four players, and while it definitely improved on the multiplayer offering from *Turok 2*, it wasn't enough to carry a full game. Still, if you had three mates and four pads...

» [N64] The final battle with the Campaigner boss. Without the Chronoscepter you'd be history.

Rage Wars followed in 1999 and *Turok 3* the year after. Two further multiformat games were released in 2002 and 2008 (the latter published by Disney Interactive following Acclaim's eventual collapse in 2004). Each sequel strayed further and further from the primitive storyline and setting of the original, and it's probably fair to say that they lost the sense of wonder and fun somewhere along the way.

In 2015 the original game was remastered and released for PC and Mac by Night Dive Studios. Playing the N64 game using an emulator is a claw-handed nightmare so if you don't have access to the original, this update is the ideal way to revisit *Turok* and discover why the game means so much to those early N64 adopters.

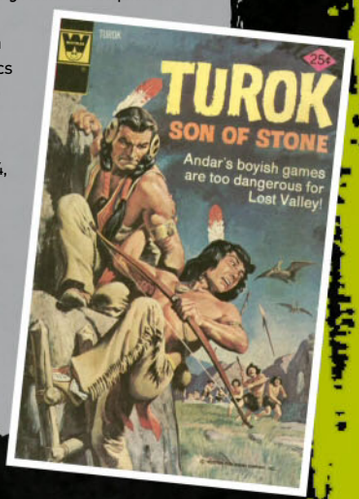
» [N64] Compare the UK version with the censored German release, which replaced humans with robots and removed all traces of blood.

TUROK: SON OF STONE

Flicking through the pages of Turok's comic book past

Turok is nowhere near as well-known as comic book creations such as Spider-Man, Iron Man and The Incredible Hulk, but he actually predates them and many of their ilk, having made his first appearance in 1954. The original comics were created by Western Publishing and titled *Turok: Son Of Stone*. They follow Native American Turok and his brother Andar as they try and escape from the "Lost Valley", a timeless zone where dinosaurs roam.

The original series ended in 1982 but was resurrected ten years later by Valiant Comics who introduced the *Dinosaur Hunter* title which the videogame would later adopt. The new series also changed the premise so that Turok battles both ancient creatures and futuristic foes including aliens and 'intelligent' mechanised dinos. Following Acclaim's acquisition of Valiant in 1994 and the release of the N64 game in 1997, a new series of comics arrived to capitalise on the character's videogame exploits. Despite the collapse of Acclaim in 2004, Turok has lived on as a comic book character, appearing in a number of new serials. His most recent appearance was in the aptly-named *Turok*, a five-issue series published by Dynamite Entertainment in 2016.



TUROK 3: SHADOWS OF OBLIVION

N64 2000

■ The third game proper arrived late in the N64's life and was largely overlooked, which was a shame as it fixed some of the key issues with the first two games (chiefly the painful save system and the lack of clear objectives). It was also the most eccentric of the three, featuring some truly odd creatures and outlandish bosses. The graphics and animation were further improved, but once again this played havoc with the frame-rate, draining some of the fun from the game in the process.

TUROK EVOLUTION

GAMECUBE, XBOX, PS2 2002

■ The series returned after a short hiatus but it was now no longer a Nintendo console exclusive, appearing on the GameCube, Xbox and PS2 (plus the PC as usual). Despite the title, the game had one foot stuck in the past, being more or less an update of the popular *Turok 2*. Hyped additions like the flying missions were dashed by poor controls, and the whole game looked pretty ordinary when stacked up against other console first-person shooter titles such as *Halo* and *Timesplitters 2*.

TUROK

XBOX 360, PS3, PC 2008

■ The sixth (and to date final) game in the series was the first not to be developed by Acclaim. The title suggested a reboot but this was very much a continuation of the series, and some of the problems that plagued the earlier games (poor checkpointing and vague signposting) returned with a vengeance. It did feature some enjoyable stealth elements (something the series had only dabbled with previously) but overall that was another average and indistinct first-person shooter.

Future Classic

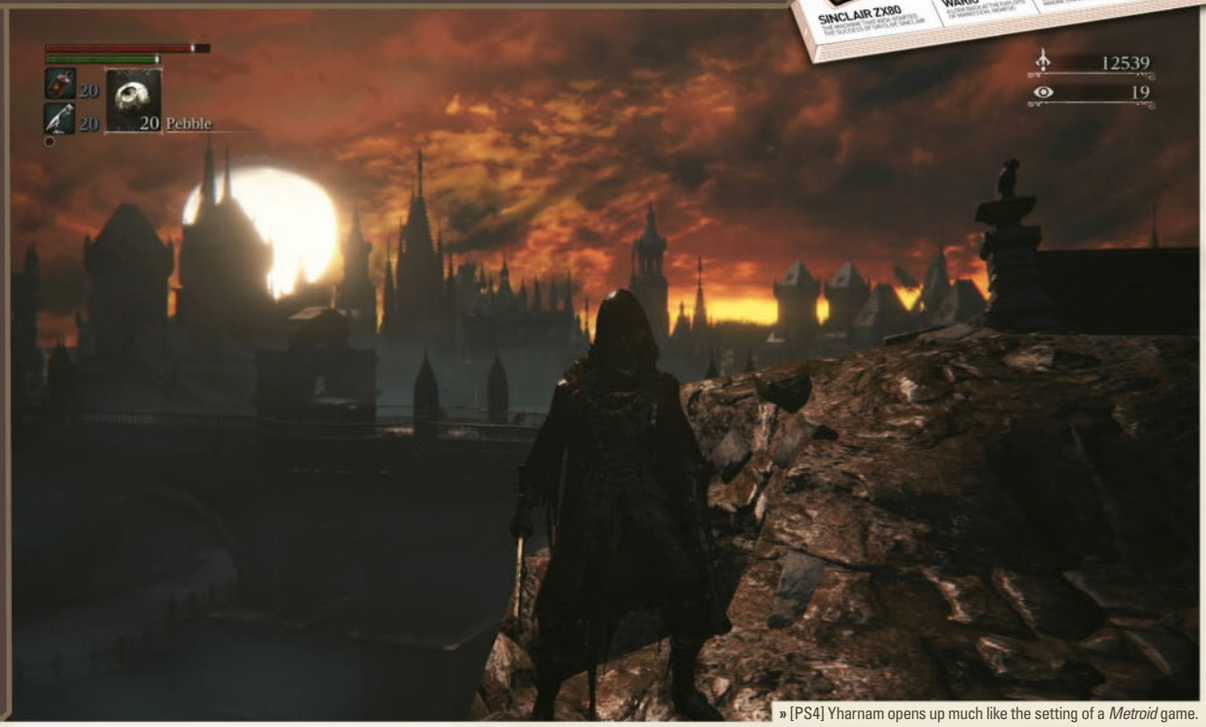
Modern games you'll still be playing in years to come

Info

- **Featured System:** PlayStation 4
- **Year:** 2015
- **Publisher:** Sony
- **Developer:** FromSoftware
- **Key People:** Hidetaka Miyazaki (director)

Go Deeper

- *Bloodborne* was originally revealed as *Project Beast* via a leak, quickly becoming one of the most anticipated games of the current generation before it even officially existed.
- Despite being one of the biggest PS4 exclusives, *Bloodborne* is notable for being one of few such games not to get a patch for enhanced PS4 Pro performance.



» [PS4] Yharnam opens up much like the setting of a *Metroid* game.

This is the Dark Souls of introductions. These are the Dark Souls of words. And Bloodborne is... well, it's actually not that much like Dark Souls, aside from also being quite difficult. Luke Albigés travels to the doomed city of Yharnam

BLOODBORNE

THE BACKGROUND

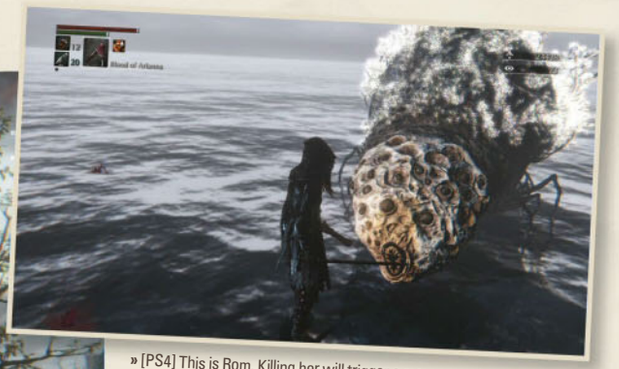
On the back of the surprise success of *Demon's Souls* and *Dark Souls*, '*Souls*-like' became the newest member of the Lazy Reference Family around five years ago, joining the likes of 'Metroidvania' and 'Roguelike' as a shorthand term for a seemingly new subgenre. Truth is, there's nothing especially new about boss-focused games that punish failure heavily – most shmups fall into that category, and it's sad to say that if *Gunstar Heroes* came out today, some clown would probably refer to it as 'the *Dark Souls* of *Cuphead* clones'. It's always been the way, though – FPS games long lived in the shadow of *Doom*, *Quake*, or whatever the floaty gun game du jour was, so these labels aren't especially surprising. What *is* surprising, though, is how Sony and FromSoftware joined forces to take an emerging genre trend and grow into something bigger, something scarier, something fresh. *Dark Souls*' key trait may be that you never truly feel safe, but *Bloodborne* takes things a step further... you're not even allowed to feel *comfortable*. Ever. There are few more oppressive games, and it's all the better for it.

THE GAME

It's easy to see why people lump *Bloodborne* in with the *Souls* games. On a surface level, they are quite similar – brutally hard games built around tough bosses, not to mention the fact that it's the same studio at the helm. Yet there are some crucial changes to the template, some of which may swoop below the untrained eye. Setting is the most obvious difference, the game switching the western European medieval fantasy furniture of its stablemates for a more modern (in as loose a sense as you might expect from **Retro Gamer**) Victorian-esque backdrop, with elements of Lovecraft and Stoker thrown in for good measure. This gives *Bloodborne* more of a horror vibe than its stablemates, a factor it plays up expertly. It's no overstatement to call *Bloodborne* one of the most oppressive games you'll ever play, because it is – the awkward architecture, the chilling soundtrack, and the horrible inhabitants all conspire to make sure this is a place you absolutely do not want to be in.

And yet still you do. As with the likes of *Silent Hill* and *Resident Evil* before it, *Bloodborne* is so superb in

» [PS4] You'll often find yourself back in the Hunter's Dream – a safe haven where you can level up.



» [PS4] This is Rom. Killing her will trigger a monumental perspective shift, forcing the world around you to reveal its secrets.

Things of note

ON-SITE INSIGHT

As your Insight stat grows, enemies get tougher but you start to see the world as it really is. Only the brave will see the full truth.

TOUCH OF CHALICE

Randomised Chalice Dungeons will test the mettle of any hunter, and can be modified to suit all levels of challenge – the toughest ones are *crazy*.

THE BEST DEFENCE...

Master the Rally system and you'll be able to hold your own against even the toughest bosses through aggressive play.

ANTHEMS OF MADNESS

The game's soundtrack is a masterpiece of choral and orchestral doom-mongering. It's on Spotify, too, in case you ever need to feel terrible.

EQUALS SEQUELS?

Bloodborne 2 is one of the most common modern PlayStation rumours – we can't see a direct sequel happening, but a spiritual one would be most welcome.

» [PS4] As you venture deeper into *Bloodborne*, things get *weird*.

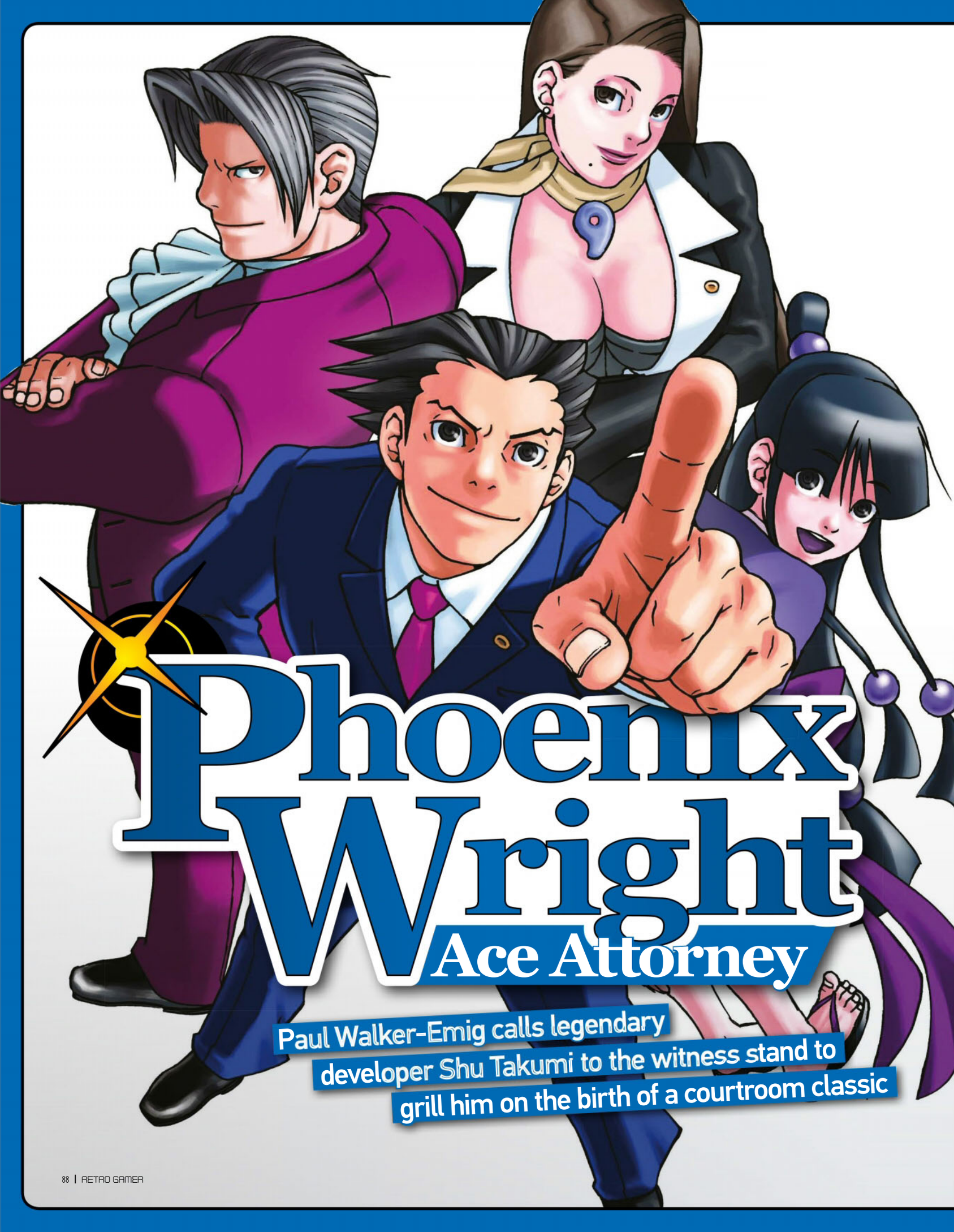
its painting of this terrible place that you can't help but feel intrigued by it, captivated by it, even. You want to venture in, even though it's been made perfectly clear that no sane person should. And no sane person *will*, thanks to the ingenious Insight mechanic, whereby every new revelation is tracked – in numerical fashion, for legibility – and each vision into the true nature of the world comes at a price. As much as you're free to keep this value low and press on down the path of least resistance, to do so is to miss one of the most interesting worlds gaming has ever presented us. Similar nuance extends to the game's combat, where aggression is promoted over the usual more considered approach of the *Souls* games. This concept is embodied by the Rally system, where recently lost health can be restored by quickly lashing out at your enemy with a flurry of desperate attacks – a risk-reward system whose pace is perhaps unmatched outside of the *Burnout* games. It's counter-intuitive at first, but the blood-for-blood attitude it inspires is tonally perfect with the game and soon becomes second nature given how aggressive most opponents can be. The game's thirst for blood in this regard even extends to its stablemates – the one shield in the game is included effectively as a joke item and highlights in its flavour text how such equipment 'engenders passivity', once again promoting more active play.

That said, there's a balance to be struck, for sure – one of the earliest parts of the game teaches the value of slowly picking off targets one by one, deliberately delivering a lesson in aggression management and strategy that aids in the challenges that are to come. Outnumbered often equals dead in this world, so kiting foes with tossed pebbles might just save your life... 'might' being the operative word.

WHY IT'S A FUTURE CLASSIC

The 'Souls' phenomenon will undoubtedly be revisited down the line and the truth is that all four games – *Demon's Souls* through *Dark Souls III* – are more or less interchangeable mechanically and thematically… all great, but all doing very similar things. *Bloodborne* sits in its own space, as it deserves to – it's the game that broke away from that template to deliver something mysterious and beastly in its own right. Few games have nailed this kind of Lovecraftian horror so well, and it's unlikely that any will match Yharnam in that regard any time soon. That coupled with a less obvious reliance on the online element (co-op and PvP, while still possible, are far less important to the experience than in the *Souls* games) also helps make it the most futureproof game in its stable. You could say that it's the *Dark Souls* of *Dark Souls* games, only doing so would make you a terrible person, so don't do that. Please.

» [PS4] Ah, now it wouldn't be an RPG without loot chests.



Phoenix Wright
Ace Attorney

Paul Walker-Emig calls legendary developer Shu Takumi to the witness stand to grill him on the birth of a courtroom classic

IN THE KNOW

- **PUBLISHER:** Capcom
- **DEVELOPER:** Capcom
- **RELEASED:** 2001
- **PLATFORM:** Game Boy Advance, DS, Various
- **GENRE:** Graphic novel, puzzle

DEVELOPER HIGHLIGHTS

STREET FIGHTER II
SYSTEM: ARCADE
YEAR: 1991

RESIDENT EVIL (PICTURED)
SYSTEM: PLAYSTATION, SATURN, PC
YEAR: 1996

GHOST TRICK : PHANTOM DETECTIVE
SYSTEM: DS, MOBILE
YEAR: 2010

» [DS] The 'Objection!' graphic has become synonymous with the *Ace Attorney* series.

To explain the appeal of *Phoenix Wright: Ace Attorney* succinctly is difficult. It's a problem that even the game's creator, Shu Takumi, faced when he came up with the idea for the game. "When I first presented the project internally, the reaction was mostly negative," Takumi tells us. "People heard the words 'trial' and 'lawyer' and thought the game sounded difficult and boring, or that it would require a working knowledge of the law. This only emboldened me to dispel those negative conceptions of the game and make sure it had a positive impact." As we now know, while a game about playing a defence lawyer in court might *sound* a bit dour, *Phoenix Wright* is anything but. It's colourful, ostentatious, silly, expressive, tense, exciting and a whole lot more. But Capcom wasn't to know that's what Takumi had in his mind. So, how did the first game in the now long-running *Ace Attorney* series come to be?

"Around the year 2000, Capcom had a few smaller titles in production with the aim of letting the younger staff members gain more experience," Takumi explains. *Phoenix Wright: Ace Attorney* was to become one of those titles. "My then-boss, Shinji Mikami [of *Resident Evil* fame], gave me six months and told me I could create anything I wanted. I've been a huge fan of classic western mystery novels since a young age, so I knew this was my first and maybe last chance to make my own mystery game like I'd always dreamed of," he continues. "I wrote up the design document for *Phoenix Wright: Ace Attorney* and, because it was a small project, almost no one at the company knew about it until it was completed."

» [GBA] Larry Butz (or Masashi Yahari in the Japanese version) has a habit of getting himself into trouble.

> **"The original concept for the game was not about trials"**
> Shu Takumi

» [DS] *Ace Attorney* isn't shy about dishing out the bad puns and cheesy jokes.

The game is at its best during its fantastic courtroom battles, where you duel back and forth with a prosecutor and break down witnesses by bringing out evidence to expose contradictions in their statements. However, you have to build to a crescendo, and *Ace Attorney* does just that through its slower-paced investigative sections where you spend time investigating crime scenes and interviewing persons of interest to collect clues and set the stage for the ensuing courtroom battle. Takumi reveals that, early on, these investigative sections comprised the whole game and there was no courtroom component at all.

"The original concept for the game was not about trials, but rather a more orthodox adventure game in which you played the part of a detective," Takumi recalls. "But as I thought more and more about the gameplay system, I came up with the concept of facing off against the suspect and using evidence to expose their lies. I was confident that this was a new style of mystery game that had not been seen before, and so I thought it deserved to have a new type of main character instead of the tried-and-tested detective archetype," he says, referring to the spiky-haired defence lawyer Phoenix Wright. Takumi tells us that his main influence for making his protagonist a lawyer was the legal drama series *Perry Mason*, originally broadcast on CBS in the US from 1957 to 1966. "From all this was born the gameplay style of investigating crime scenes and gathering evidence which you ultimately put to use in a courtroom battle," says Takumi.

Despite dealing with the macabre subject of murder, *Ace Attorney* somehow manages to make this mesh with its characteristic silliness and off-the-wall approach to legal procedure which, over the course of the series, has included using the testimony of spirit mediums and cross-examining a whale on the witness stand. We ask Takumi how he went about coming up with the game's bizarre scenarios and the surprising twists and turns you encounter while playing through them. ▶

» The West was introduced to *Ace Attorney* on the DS in 2005.

» [DS] In this section, players are charged with presenting a evidence proving a witness' testimony as false, using the DS's touchscreen.

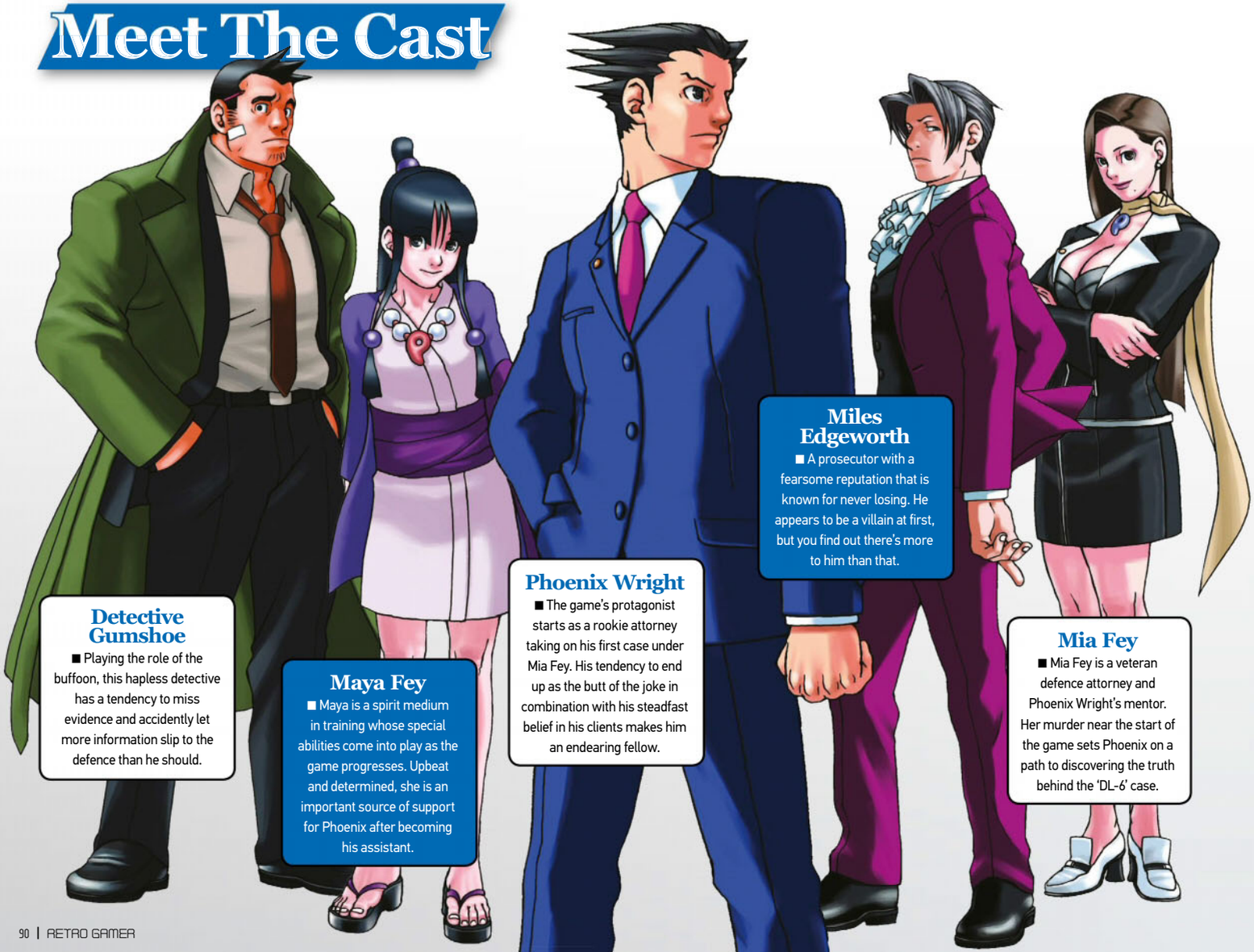
"The process was different for each case," Takumi responds. "I had never written a scenario document before, so I had no idea what I was supposed to do. I started off by coming up with a list of witness testimony contradiction ideas – for example, the witness had mixed up his left and right, or the T-bone steak they claimed to have eaten was actually boneless, and so on. I worked from those ideas to see how I could create a story around them," he explains. "However, I got through all my contradiction concepts in the first game, so for the second one, I decided to start with impactful case ideas – such as a murder with no footprints left behind because the suspect was a magician who could fly, or a murder committed by a soul occupying the body of a medium. Coming up with interesting and fun stories is really, really difficult, and there's no defined process for it. If you know of such a process I'd love to hear about it!" Takumi jokes.

The original *Phoenix Wright* was developed by a small team. Takumi tells us that there were only seven people working on it, including himself. "I was in charge of game design, scenario and overall direction. We had two graphic designers, two programmers, and two audio designers (one each for music and sound effects). It's the most compact team we've had to date and I think it's the best fit for my style of game development."

Takumi tells us that there are positive and negative aspects to working with such a small team. He credits his coworkers as being "unique and talented teammates" and says that working in a tight unit ensured that they "were able to bring out the best in everyone's abilities and create a game that was very consistent and polished". On the other hand, he says if you're missing a talent, it's hard to make up for those shortcomings. "Also, with such a tight ship, if anything causes the interpersonal relationships to break down, it can be devastating effect for the project," Takumi says.

Having such a small team and working on a handheld console in the Game Boy Advance (for which *Ace Attorney* was first released in Japan in 2001, before being ported to the DS for Japan and the US in 2005), it's no surprise that the game was not lavish in its production values. The game is primarily text-based – Phoenix's handful of trademark cries, like "Objection!" and "Hold It!" among the exceptions – and uses very little animation. However, despite those

Meet The Cast



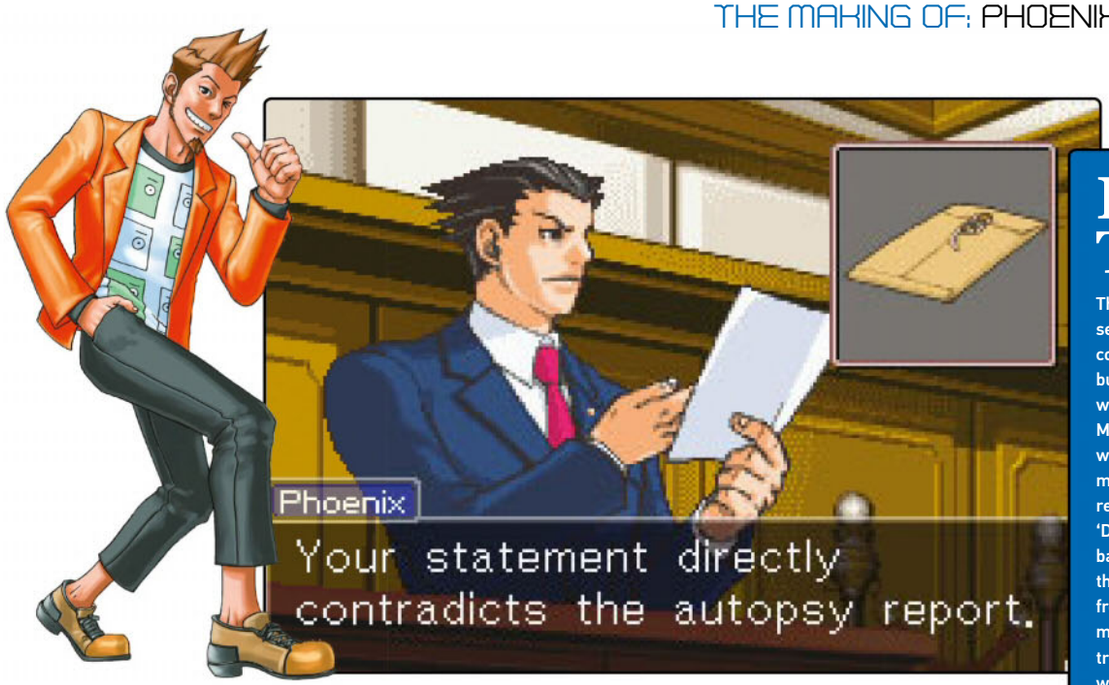
Detective Gumshoe
■ Playing the role of the buffoon, this hapless detective has a tendency to miss evidence and accidently let more information slip to the defence than he should.

Maya Fey
■ Maya is a spirit medium in training whose special abilities come into play as the game progresses. Upbeat and determined, she is an important source of support for Phoenix after becoming his assistant.

Phoenix Wright
■ The game's protagonist starts as a rookie attorney taking on his first case under Mia Fey. His tendency to end up as the butt of the joke in combination with his steadfast belief in his clients makes him an endearing fellow.

Miles Edgeworth
■ A prosecutor with a fearsome reputation that is known for never losing. He appears to be a villain at first, but you find out there's more to him than that.

Mia Fey
■ Mia Fey is a veteran defence attorney and Phoenix Wright's mentor. Her murder near the start of the game sets Phoenix on a path to discovering the truth behind the 'DL-6' case.



» [DS] Finding contradictions in the witness' testimony and pointing them out is the aim of the game.

limits, *Ace Attorney* feels incredibly dynamic; it's a shining example of how you can do a lot with very little. Characters may not move a lot, but they are incredibly expressive, their reactions melodramatic and theatrical in the fashion of a silent movie star. Each character typically has a few gestures, but each of those gestures feels emblematic of that character's personality and are used perfectly to play up the impact of everything that happens, whether it be Phoenix reacting to a stinging jibe, or a witness recoiling in horror when they realise they've been caught lying. Tie those gestures together with a handful of cartoony sound effects and you've got a game that bursts with a vigour and personality that belies its relatively static nature. We ask how Takumi and his team came up with that style.

"There wasn't any particular inspiration for us," Takumi responds. "I think that we ended up with this style simply because the team was young and we got caught up in creating something that we would find funny ourselves. We wanted there to be a feeling of satisfaction when you finally uncovered the contradiction in the suspect's testimony and smack them down," he continues. "So, in a sense, maybe you could say that Capcom's fighting game know-how shone through there! But while we were making the game, it didn't feel like it was coming together at all. It wasn't until the project was almost finished that I was able to think to myself, 'You know what, this might actually be fun.'"

Key to what makes *Ace Attorney*'s courtroom battles so exciting, despite that fact that they mostly consist of reading text in among some sparse animation, is the sense of pace they have. The game is masterful in creating the feeling that you are building momentum towards uncovering something, the camera swishing back and forth between defence and prosecutor as the intensity builds, before pulling the rug out from under you, putting you on the back foot again and forcing you to battle back. Key turning points are highlighted, not just by those expressive faces and gestures, but by a quickening of the speed of exchanges and through the use of the iconic music created for the game by Masakazu Sugimori. Using those elements – the music, the expressions, the pace of the dialogue, the cutting between defence, prosecution, witness and judge - the game is great at making you feel cornered when things are going against you.

> **"I think that we ended up with this style simply because the team was young"**
> Shu Takumi

» [GBA] As colourful and crazy as the world of *Ace Attorney* is, the serious business of murder is never far away.

It was a lot of effort," says Takumi, reflecting on the work that had to be put in to get the pacing of the courtroom battles right. "For a game where the main activity for the player is reading text, first and foremost you need to make sure they don't get bored. This applies not just to the ups and downs of the storyline but fine details, such as music changes and character reaction animations, which we worked hard on. We had a lot of rewrites of the first three cases in the first game in order to make sure we were all fully aware of how the flow worked. If I'm not enjoying the story, then there's no way a player will be able to either, so it's important to really examine whether or not I personally feel the story is entertaining."

The hard work that Takumi and his team put in to get that pacing right evidentially paid off. Six mainline games and a handful of spinoffs later, *Ace Attorney* is still going strong. New attorneys, like Apollo Justice and Athena Cykes, have joined Phoenix along the way, and each game has introduced new systems to keep things interesting. The appeal of the series hasn't changed all that much, though. It still lies in that unique blend of detective work and thrilling confrontation established by Shu and his six colleagues for the first *Ace Attorney.*

Looking back with hindsight, we ask Takumi if there's anything he wished he'd done differently. "No," he replies. "When you make a game, you put everything you have into it for a year or two or whatever length of time it takes, and while some things may turn out better than expected and some things worse, that's just part of the unique tapestry of each game. As soon as a game is finished, of course, I have lots of niggling things in my mind that I'd like to change, but as time passes, I find that I love the game including its flaws. I think it's best to leave past games as they were." ✱

Beyond The Game

There are plenty of successful videogame series' that have their own spin-off games, comics, and novels. *Ace Attorney* has all that, but it's also gone a step beyond. In 2012 there was a live-action movie directed by Takashi Miike – *Gyakuten Saiban*, or *Turnabout Trial*, which is the franchise's Japanese name. The movie follows the story of the first game relatively closely, focusing on the so-called 'DL-6' case. In 2013, there was a stage play based on the series called *Turnabout Spotlight* that tells a new story featuring characters from the game. Then there are the stage musicals produced by the all-female theatre troupe Takarazuka Revue. It started in 2009 with *Ace Attorney: Truth Resurrected*, which was an adaptation of the last episode from the first game. In 2010, it performed *Ace Attorney 2: Truth Resurrected Again*, which included an original act and an act based on the concluding episode of the second game, *Phoenix Wright: Ace Attorney – Justice For All.* In 2013, the troupe followed up with an entry focusing on Phoenix Wright's long-time rival and occasional ally, Miles Edgeworth, entitled *Ace Attorney 3: Prosecutor Miles Edgeworth.*

» [DS] You can see just a little bit of Capcom's fighting game heritage in *Ace Attorney* if you look for it.

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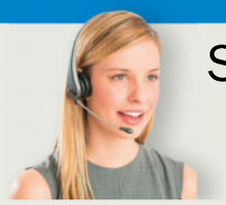

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JASON KINGSLEY

From a basement in Oxford to a group of dev studios, Jason and his brother Chris have guided Rebellion from the start. Andrew Fisher talks to Jason as the company turns 25 years old

It was a hard first question, but what makes a game a 'Rebellion game'? Jason replies, "Playability. Above all, gameplay is paramount. Graphics are important and we try to have the best graphics and story that we can. But at the end of the day if you ask me what component of a game makes it enjoyable, it's got to be the feel of the gameplay. And that's hard to write down and hard to define, but there have been plenty of beautiful games that have bad gameplay and plenty of ugly games that have great gameplay. For me, at the top of the list is always gameplay. I want people to feel like they were thrilled when they put down the controller."

What were your earliest experiences with the world of videogames?
I remember playing both *Scramble* and *Space Invaders* on arcade machines, and those pocket gamer watch things… I'm not sure which order everything came in now! There was a *Scramble* machine in the local chip shop. You'd go for chips after school and put your spare 10p into that. Arcade machines were obviously a big influence for Chris and I, and those fond memories of playing the iconic *Battlezone* machine played a big part in us bringing back *Battlezone* for virtual reality.

When did you start making games?
My brother Chris and I would invent our own variations of classic board games. So even as a kid I was thinking about making games. I eventually started working freelance after university for companies such as Electronic Arts and Atari.

Whose idea was it to set up Rebellion?
Chris and I had both been freelancers for a while and we set up the company because we were being asked to act as project managers but were not being paid to do so by the publishers, and because we were working with a group of other freelancers, we couldn't do anything if the others were late in delivering their milestones. We really wanted to formalise everything and form a development group, and having a limited company was a way of doing that. It gave us the opportunity to approach and pitch our ideas, and that's what really got us on our way.

Who designed the logo, which has stayed with the company for 25 years?
We discussed a range of different company names and logos, and eventually settled on the idea of basing it on the Solidarność logo, the one used by the Polish trade union. I felt like it conveyed the image of the word 'Rebellion' that was spray-painted onto a wall. It was a chap called Justin Rae who originally drew it up for us – he was our first employee, and he later went on to work for EA.

» [Amiga] The cockpit view from *Eye Of The Storm* – a game developed just as Rebellion was being formed.

In those early days how did you divide the work between yourself and Chris?
50/50, always has been. Chris is more technical than me. Arguably I'm a bit more artistic than Chris, though it's fair to say we both share both traits. So, broadly speaking, we follow the same routes. So I would be doing the art and design and he would be doing the design and code.

Do you still get involved in game design and programming?
100 per cent, yes. Absolutely, it's very important to me. It's why I set the company up in the first place; I

> We were being asked to act as project managers but were not being paid to do so by the publishers
>
> Jason Kingsley

Photos: Courtesy of Lick PR

GLITTERING PRIZES

Rebellion's accolades

Rebellion can definitely call itself it an award-winning developer. 2017 saw the company net two TIGA (The Independent Game Developers' Association) awards for Best Independent Studio (Large), and Best Visual Design for *Sniper Elite 4* – and a nomination for Best Studio in this year's Golden Joysticks. The *Sniper Elite* series has gained many accolades, receiving TIGA awards in 2012 and 2013. *Judge Dredd: Dredd Vs Death* scooped the TIGA Award for Best Game in 2003 and a BAFTA nomination.

Alien Vs Predator found itself the recipient of no less than three Jaguar Game of the Year awards in 1994 – from *Game Informer*, *Game Players* and *VideoGames*, as well as *GameFan*'s Best Jaguar Action/Adventure Game – and found a place in **Retro Gamer**'s Perfect Ten Jaguar Games (way back in issue 26). The PC follow-up won the Develop Award in 1999 for Best Computer Programming, and two BAFTA nominations. (The 2010 remaster was *Develop*-nominated for Best Use Of A Licence or IP).

Looking to the future, forthcoming shooter *Strange Brigade* (pictured here) picked up GamesRadar+'s Best of E3 2017 and *Official PlayStation Magazine*'s Best of British 2018, along with three other Best of E3 nominations for its showing at the annual event.

wanted to make games. So yes, right now after this I'm about to play some competitors' games, and then I'll go on and play our latest *Strange Brigade* build and do some compare-and-contrast.

You started out as bedroom coders. How soon did you move into a 'proper' office?
We actually started in our basement, not a bedroom! But it was probably a couple of years into it, when we went to see Atari in Slough and they commissioned us to do *Alien Vs Predator,* that we realised we probably needed to be in a proper office.

How well did Rebellion's first game *Eye Of The Storm* do?
Quite well, I'd say and it was innovative for its time. We were trying to make a game where you didn't kill things – the idea was to explore and photograph, and we wanted to break ground with a 3D exploring game. I can't even remember the exact numbers as it was so long ago, but it did well enough to make us a profit.

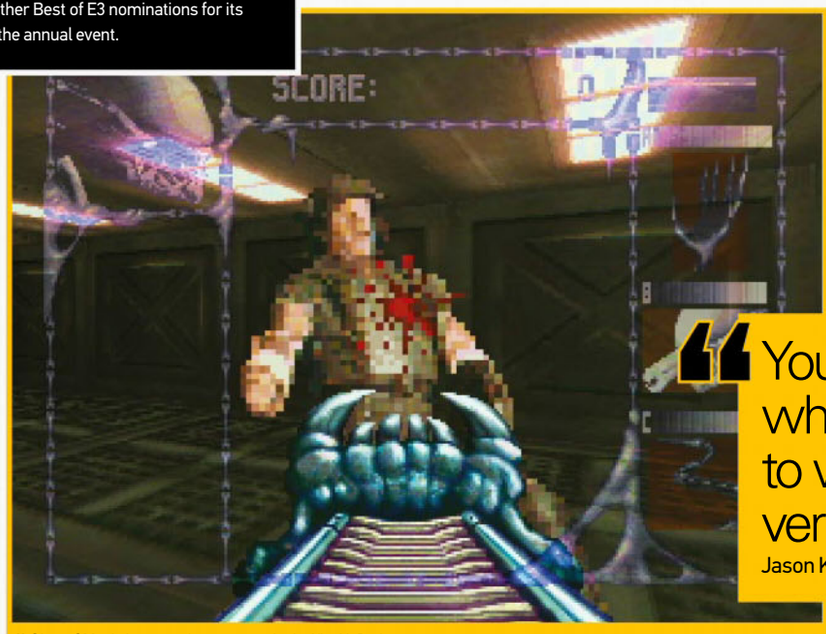
What was the Jaguar development kit like to work with?
Interestingly enough we didn't know it was called Jaguar to begin with. We received hand-built, PC-like boxes to start with, later on followed by development kits known that were known as Alpine boards, named after the classic car manufacturer from the Sixties and Seventies. It came in a horizontally orientated PC tin box. And compared to what we have nowadays, you can imagine how difficult it was to work with. I remember taking weeks before we got anything on screen at all! They were hand-built, literally hand-built out of Cambridge.

How did Rebellion get commissioned to make *Alien Vs Predator*?
We got the commission partly on the basis of *Eye Of The Storm*'s success, but also from a pitch we did for a 3D dragon-flying game, which we actually demoed at Atari's office for Alastair Bodin and Bob Gleadow. God knows where that demo is now! There were only about six or so people in their Slough headquarters next to the train station, we did the pitch and they commissioned to us to work on the Atari Jaguar. It was that game that really established us as a developer and we really kicked on from there.

How much help did you get from the likes of 20th Century Fox and Dark Horse Comics?
None from Dark Horse – it wasn't anything to do with the comics at all. In fact, the game came up well before we even knew about the comics. The game was wholly its own thing. We had a moderate amount of help from 20th Fox Century. Fox was more just a licensor in those days. We had access to the sound effects, but that was it more or less. Of course they had final approval over everything.

The choice of three characters added a lot to the game's depth – were you pleased how it turned out?
Yes, that was very specifically mine and Chris' idea. It was a very early instance of a game allowing you to play the bad guys, as it were, as well as the good guy. So yes, it's something we're very happy with. As a game mechanic it really complicated things for us because effectively we had to make three different games instead of one, so it really was an unusual, innovative game.

Have you played any other games based on the *Alien* franchise?
It would be a bit like a busman's holiday. I was so steeped in *Alien Vs Predator* and everything about it that even when it comes to rewatching the movie now, I do enjoy it, but I enjoy it differently! If I can put aside that I had studied it so extensively for the



» [Jaguar] Murdering a nameless space marine in *Alien Vs Predator.*

> "You have to choose what you want to work on next very carefully"
> Jason Kingsley

FIVE TO PLAY

Rebellion's games cover all sorts of genres…

ALIEN VS. PREDATOR (JAGUAR)

■ This Jaguar killer app put Rebellion on the map, and for years it was the definitive game set in the *Alien* universe. Thanks to the choice of characters (Alien, Predator or Marine) – each with their own objectives – and the tense atmosphere generated this is a game to keep coming back to.

BATTLEZONE (VR)

■ A clever use of a now-old IP, this was an early hit in the new wave of virtual reality games. Classic Mode reimagined the glowing green vectors of the original, and there was a huge amount of new content in solo and co-op modes. It goes without saying that placing you directly in the cockpit greatly enhances immersion.

SNIPER ELITE (PC)

■ The series brought its own take on the FPS genre, combining stealth and precision. Look beyond the hype and blood surrounding the game's signature killcam and you'll find a surprising amount of depth – there's usually more than one way to complete a mission, although going in all guns blazing will usually end in your gory death.

ROGUE TROOPER REDUX (VARIOUS)

■ Combining the 'Nu Earth' setting of the comics with some clever tactical options (spray mines, create a holographic decoy or set up sentry guns), this was a good alternative to certain other big-name cover shooters. And the brand-new HD remaster makes it look better than ever.

EVIL GENIUS (PC)

■ This plays out like *Dungeon Keeper* crossed with *James Bond* with heaps of humour. *Evil Genius* sees players constructing a typical *Bond*-villain-like hidden lair (with traps to stop any pesky invading spies) and carrying out acts of infamy around the world. Rebellion is now currently hard at work on a PC sequel.

game, it makes it easier to remember why I enjoyed it so much originally.

***Aliens Vs Predator* for PC was also successful. What new content did you add, and was anything left out?**

We added lots of new content: aliens running on walls and ceilings; quantum objects so you'd never quite know where pick-ups or some enemies were going to be; a pheromone system so aliens would track you around levels and would be more likely to find you if you stayed in one place for too long; volumetric explosions; unsettling players right at the start by letting aliens attack them whilst they were watching a cutscene on a screen in the APC. I think that game was exactly what we wanted it to be. The trouble with making a videogame from a licence with classic movies like *Aliens* and *Predator*, you've got to boil it down to its essence, which is claustrophobia, Colonial Marines, the Predator, the Xenomorph, and then build it back up again. Personally, looking back on it now, I don't think there was anything missing from it, no.

In 2000, Rebellion bought the rights to *2000 AD*. What led you to this purchase?

Like so many of us, and many of us in the games industry I'd wager, I grew up reading *2000 AD*. I've been reading since Prog One and I still try to read every issue and I'm still a huge fan. *2000 AD* needed someone to step in, I think it's fair to say, and Chris and I were more than game to bring it into the Rebellion family and keep its status intact as Britain's powerhouse comic. *2000 AD* has been so influential on sci-fi, not just through the many writers and artists who've made their names there over the years. It's the worlds they've created and how those worlds have influenced other comics or films and books. Just take *Blade Runner 2049* that's just come out – you can see a lot of Mega City One in the original *Blade Runner*. Our 25th birthday isn't the only big milestone we're celebrating – *2000 AD* and of course *Judge Dredd* turned 40 this year, which is some achievement.

» [Jaguar] The then-impressive polygonal racing game *Checkered Flag* was developed by Rebellion.

2005 saw the first *Sniper Elite* game arrive. What inspired you to make it?

The idea was to make a war game which was really about how horrible war is and to make it entertaining. And that took us to the idea of emphasising what sniping can do rather than shying away from its devastating effects, or reducing what you see of the bullet to a crosshair. We felt it would be interesting to, well, not quite simulate, but to showcase the bullet shots with the camera to make it truly impactful. We wanted to make the shot feel dangerous, to make it feel difficult to pull off, and ultimately both satisfying and, like I say, impactful to achieve.

Much has been written about the killcam feature – where did that idea come from, and what do you think it adds to the experience?

Obviously lots of people get thrilled by it – I remember the first time we showed the X-ray kill cam to people and everybody winced. I thought, 'That's brilliant, that's exactly what it should be.' Shooting another person – okay, it's in the context of war – but shooting another person is an absolutely dreadful thing to do. We wanted to emphasise that by showing you the effect of the bullet closing in on somebody and maybe even showing the person's face as they're going to die.

» [Jaguar] Entering a hostile zone in 3D game *Skyhammer*.

The idea that eventually evolved into what's become the killcam was, from a gameplay perspective, to make you register the damage you are doing, rather than just simply targeting as many enemies as possible as quickly as possible.

Zombies have invaded many games, including your own *Zombie Army Trilogy*. Why do you think people like to blow them up?

The best thing about zombies is they're basically always animated by some kind of evil force or disease or whatever. Killing them, stopping them, or releasing them from this curse is pretty much guilt-free and arguably more legitimate than shooting most other enemy types. I think zombies are quite good baddies, yeah… in our games they tend to shamble so you can theoretically run away from them and line up multiple headshots quickly. You might feel overwhelmed but you've always got a fighting chance against them!

Rebellion owns a lot of different properties. Does that add extra pressure or problems?

It means you have to choose what you want to work on next very carefully. You want to work on a combination of original stuff and really great stuff from the past, ▶

» [GameCube] The BAFTA-nominated *Judge Dredd: Dredd Vs Death*, inspired by the *2000 AD* comics.

SELECTED TIMELINE

GAMES

- **EYE OF THE STORM** (AMIGA, DOS) 1993
- **ALIEN VS PREDATOR** (JAGUAR) 1994
- **CHECKERED FLAG** (JAGUAR) 1994
- **TOM CLANCY'S RAINBOW SIX** (PLAYSTATION) 1999
- **ALIENS VS PREDATOR** (WINDOWS) 1999
- **ASTÉRIX: SEARCH FOR DOGMATIX** (GAME BOY COLOR) 2000
- **SKYHAMMER** (JAGUAR) 2000
- **THE MUMMY** (PLAYSTATION, WINDOWS) 2000
- **SNOOD** (GAME BOY ADVANCE) 2001
- **GUNFIGHTER: THE LEGEND OF JESSE JAMES** (PLAYSTATION) 2001
- **DELTA FORCE: URBAN WARFARE** (PLAYSTATION) 2002
- **MEDAL OF HONOR: UNDERGROUND** (GAME BOY ADVANCE) 2002
- **GUNFIGHTER II: REVENGE OF JESSE JAMES** (PLAYSTATION 2) 2003
- **JUDGE DREDD: DREDD VS DEATH** (VARIOUS) 2003
- **DEAD TO RIGHTS: RECKONING** (PSP) 2005
- **DELTA FORCE: BLACK HAWK DOWN** (PLAYSTATION 2) 2005
- **SNIPER ELITE** (VARIOUS) 2005
- **007: FROM RUSSIA WITH LOVE** (PSP) 2006
- **ROGUE TROOPER** (VARIOUS) 2006
- **GUN: SHOWDOWN** (PSP) 2006
- **ALIENS VS. PREDATOR: REQUIEM** (PSP) 2007
- **FREE RUNNING** (VARIOUS) 2007
- **HARRY POTTER AND THE ORDER OF THE PHOENIX** (PSP) 2007
- **STAR WARS: BATTLEFRONT – RENEGADE SQUADRON** (PSP) 2007
- **THE SIMPSONS GAME** (VARIOUS) 2007
- **CALL OF DUTY: WORLD AT WAR – FINAL FRONTS** (PLAYSTATION 2) 2008
- **PDC WORLD CHAMPIONSHIP DARTS** 2009 (NINTENDO DS, WII) 2009
- **EVIL GENIUS** (WINDOWS) 2009
- **EMPIRE EARTH: GOLD EDITION** (WINDOWS) 2009
- **STAR WARS: BATTLEFRONT – ELITE SQUADRON** (PSP) 2009
- **ALIENS VS. PREDATOR** (VARIOUS) 2010
- **JUDGE DREDD VS ZOMBIES** (MOBILE) 2011
- **NEVERDEAD** (PLAYSTATION 3, XBOX 360) 2012
- **SNIPER ELITE V2** (VARIOUS) 2012
- **PINBALL WORLD** (LINUX, MACINTOSH, WINDOWS) 2014
- **SNIPER ELITE III: AFRIKA** (VARIOUS) 2014
- **ZOMBIE ARMY TRILOGY** (VARIOUS) 2015
- **BATTLEZONE** (PS VR, WINDOWS) 2016
- **SNIPER ELITE 4: ITALIA** (VARIOUS) 2017
- **ROGUE TROOPER: REDUX** (VARIOUS) 2017

ideally. So, for example, *Battlezone* is a new game based on a past brand – and we've brought it back in VR. *Sniper Elite* we created ourselves, same for *Zombie Army*. *Evil Genius* is something we acquired and we're very excited to do more with it with *Evil Genius 2*. It's a bit like a portfolio approach, allocating time and investment in and across a number of different assets at the same time. It certainly takes some balancing.

Rebellion worked on a lot of handheld games, including the PSP and Game Boy. What do you think works well on handhelds?

Well, I used to say short-term games, simple things that you pick up and play and put down again for travelling on a bus or something like that. But these days with the success of Nintendo's Switch, I've changed my mind. I think that actually playing a handheld format like Switch on your sofa in your living room is actually quite convenient and fun. So therefore I think it's completely changed.

And there are some fantastic games on Switch now including of course *Rogue Trooper Redux*. So I think perhaps my opinion of handheld gaming has changed. I think now – as long as the controllers work… I find touchscreen games slightly less deep than controller-based games. I think some of the iPhone and iPad games are perhaps a little more shallow than things like Switch games. So I'm very in favour of things like Switch. I liked the PSP too, and going back the Atari Lynx was quite fun!

Rebellion now owns three book publishing labels. Have you thought about developing any books into games – or games into books?

Absolutely, yes. We obviously do books based on comics – there are the *Judge Dredd* ebooks for example. We've announced the tie-in *Strange Brigade* book, *The True History Of The Strange Brigade*, and that will explore the origins of the cast of characters in that game. We've done comic book versions and book versions of *Sniper Elite*, and we even went full circle and did a promotional comic for *Rogue Trooper Redux*, which of course is based on the *2000 AD* comic. So yeah, it depends. It depends entirely on the strategy and on the timing, on what we've got and what we're able to do.

***Rogue Trooper* has undergone a remastering process for new hardware. Are you happy now more people will play it?**

Oh, very much so. The original game was an exciting game, and it did great justice to the *Rogue Trooper* comic. In many ways it was a trendsetter as one of the first cover-based games, but it also influenced us as a studio when it comes to making tactical shooters like *Sniper Elite 4*. The team here and at TickTock have done a totally fantastic job, so to be able to bring *Rogue Trooper* back and make it look as good as it does, it means a lot to us as a studio.

Are there any other Rebellion titles that you would like to remaster?

We've got nothing to announce on that front just yet, but I will say that we do have a diverse library of properties and we are keen to bring back some of those classics and give them the modern-day makeover they deserve. But you'll just have to watch this space for now!

Which hardware has been your favourite to develop for?

It wouldn't be right to say which is my favourite to develop for, but I will say that I play most of my games on PC. I'm a big fan of mouse and keyboard – which can be to the annoyance of some of the people here who play their games with a controller! But we have a rich heritage of strong PC games here at Rebellion and I'm more than happy to still beat that drum!

How do you see the future of gaming, and how does Rebellion adapt?

We've always been flexible. We've been around for 25 years, and we've always adapted and worked with the technology as opposed to against it. Nostradamus

» Audio files being edited at Rebellion, with Xenomorphs hiding under the monitor.

> Our developers should be proud of what they have achieved
> Jason Kingsley

proved that predicting the future is quite difficult. And I'd hate to predict it myself! The industry will continue to explore new areas, new ideas and new avenues as it always has done, and we'll endeavour to continue being a part of that.

After 25 years of the company, do you still have a passion for the industry?
I'm happy to say I'm as passionate about everything I do these days, arguably more so than when I started out. Not having investors, being independent – it means Rebellion is very much our company, and that means we can be and are as involved as possible. I have two big passions in life – gaming is one of them, and the other is training my own medieval horses. I have four suits of armour and I go riding whenever I can, and I joust and fight for the English Heritage and the Royal Armouries and the Historic Royal Palaces… so hopefully that tells you a bit about my passions!

Looking back, what are your personal favourite games that Rebellion has developed?
I think the first commercial game we made as Rebellion which was *Alien Vs Predator* has to be a defining moment, because you suddenly get something out there and it's a hugely successful thing. I'd made games before – I made a game called *Blade Warrior*, *Eye Of The Storm* and stuff, but they weren't really made as Rebellion. But your first game that's labelled Rebellion is *Alien Vs Predator* and it was brilliant. It was really fun to work on. And we innovated. We used actual models, we used photogrammetric techniques – we actually photographed things and put them in the game. It looks a bit clunky today perhaps by modern standards but not to me, I'm really proud of what we achieved back then.

2017 has been special, too. *Sniper Elite 4* was the first time we released a game in the series without a traditional publisher and not only is it outperforming *Sniper Elite 3*, but most importantly many players think it's the best game in the series, too. Our developers should be proud of what they achieved and it's nice to know we made the right decision.

What have been the funniest moments from the last 25 years?
I can remember being told by an external producer that we needed to get 32 colours on the Sinclair Spectrum. And I said that wasn't technically possible because it didn't have 32 colours, and they said, "Don't give me excuses, give me solutions."

I pitched a science fiction flying game to a publisher and the people on the other side of the table said, 'Could you change it to a hovercraft game?' I said, 'Well, I suppose so, but why?' And they said, 'The last hovercraft game we made did really badly in the market, and we think there's room for another hovercraft game.' So… the last hovercraft game they made was a shitstorm, but they wanted us to make them another because they thought there was a gap in the market? Really!?

Finally, I was also told by somebody that blue characters in videogames don't sell. This particular person was talking about *Rogue Trooper*, and said, 'Oh of course if *Rogue Trooper* had been anything other than blue, the game would have sold even better than it did.' That's even though it sold really well. So I said, 'Oh, and why's that?' He said, 'Any videogame with blue characters doesn't sell.' And I said, 'What, like *Sonic The Hedgehog*?' He said, 'Well, apart from *Sonic The Hedgehog*.' So I said, '*The Smurfs Game*' – it was huge at the time. 'Well, yes, apart from those two. I can't think of another game character that's blue…' Then he just harrumphed and walked off. I wonder what he thought when he saw *Avatar*.

Thanks to Jason for his time.

» [GBA] Rebellion created a number of portable games for EA, including *Tiger Woods PGA Tour Golf*.

» [GBA] Rebellion attempted to recreate *Medal Of Honor* in portable form.

YOU ASK THE QUESTIONS

It's time for you to lead a rebellion and ask Jason your questions

NIKOLAI: What game that you did not make, do you wish you had thought of before the creators?

Fallout! Post-apocalypse stories are popular fodder these days in books, comics, TV and, of course, games, but *Fallout* is the king as far as I'm concerned. The blend of despair, commentary and humour is perfect.

CRUSTY STARFISH: *Aliens Vs Predator* on the PC is still the best game ever to feature those nasty creatures – would you consider doing an up-to-date version?

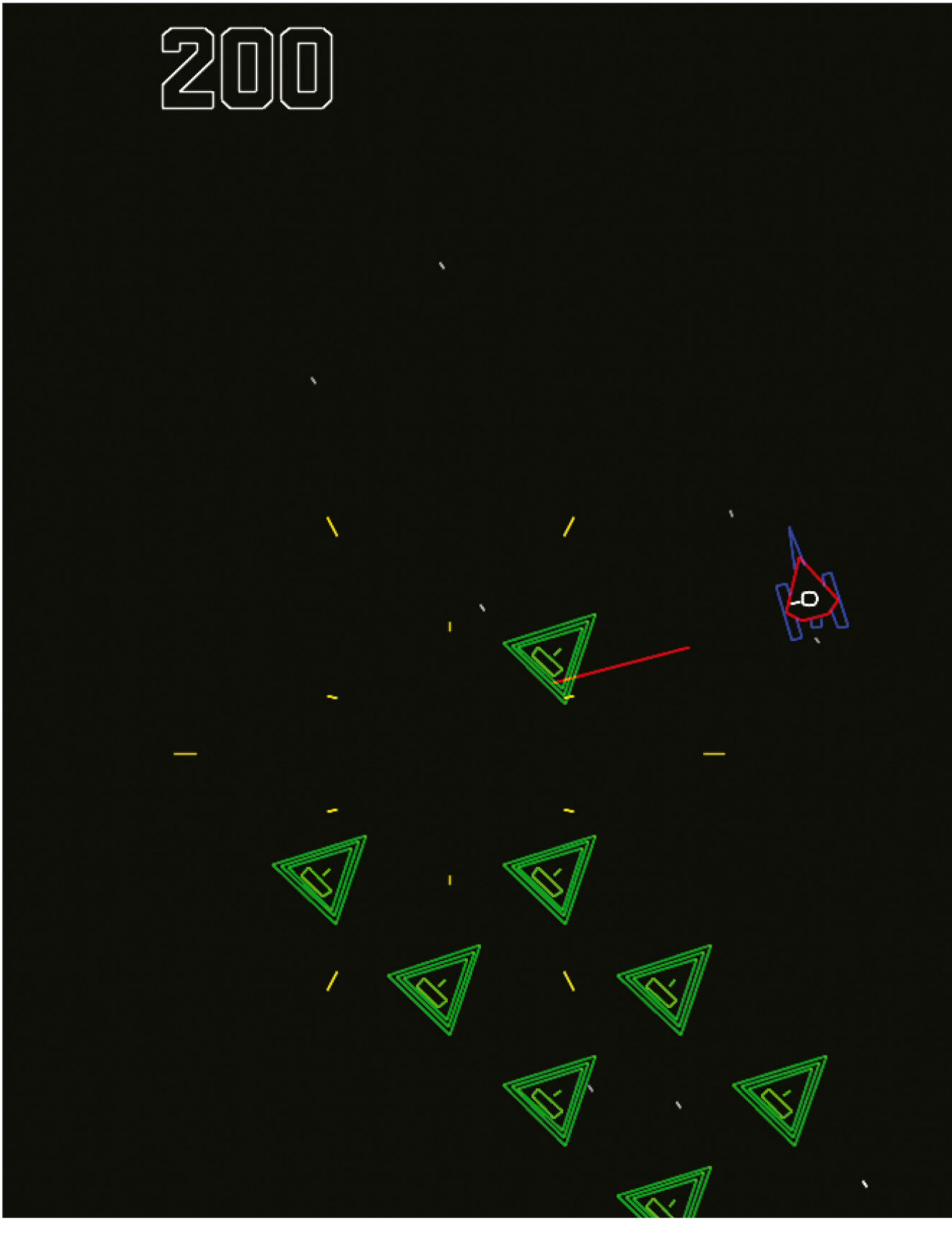
We'd love to do another *AVP* project. Look closely around the studio and you'll find facehugger cuddly toys all over the place! It's up to Fox, though, and we still have friends there. Would be hard to turn down.

ANTIRIAD_2097: How closely involved with the Karl Urban *Dredd* film were you and Rebellion?

Very involved. I mean, obviously we licensed it, but we worked very closely with the production team right from the very beginning. We weren't involved on the day-to-day basis of production, but we were very involved in the beginning.

JDANDDIET: What are your favourite *2000 AD* characters and are we going to see them on the screen?

That's a tough one. My tastes have changed with the times, just like the Prog. As for getting them on-screen, we're planning for a really interesting ensemble cast for the *Mega City One* TV show. I think *2000 AD* fans will love what we're planning.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Aztarac

SHINE ON YOU CRAZY DIAMOND

» ARCADE » CENTURI » 1983

This is a sad story about a beautiful game with a happy ending. Back in the early Eighties, Centuri made a name for itself in the coin-op business by licensing Japanese-made games, such as *Phoenix* and *Gyruss*, and distributing them in the West. Then one day, an ambitious programmer called Tim Stryker walked into the Florida HQ and convinced the team that he could produce a hit title in-house.

The result was *Aztarac*. Players were tasked with defending their bases from a relentless onslaught of alien attackers, blasting them with a rotating gun turret and using the clever radar system to keep track of encroaching enemies. The colourful vector graphics, particularly the dazzling explosions, were wonderfully detailed and really sparkled thanks to the state of the art Wells Gardner monitor and the unique 'fishbowl' bezel on the front of the cabinet.

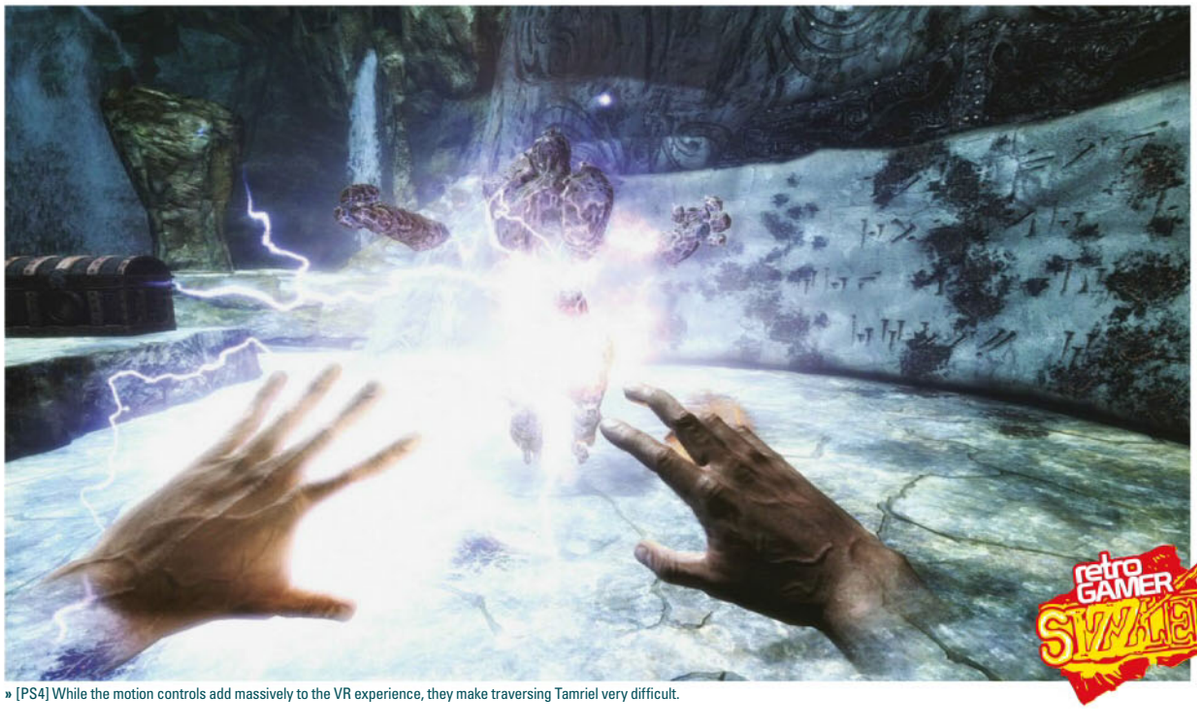
Released in 1983, the game was caught up in the industry crash and only 200 machines were ever produced. Tim, disappointed that his innovative work was a commercial flop, left the coin-op world behind, though had considerable success with MajorBBS, an early Bulletin Board software package, which pioneered the idea of online forums. Clearly he was something of a visionary but tragically his creative mind was also a troubled one and in 1996, he took his own life.

Last year, one of the few surviving *Aztarac* machines was put up for sale. This in itself would be an incredibly rare occurrence, but when the eager purchaser Neil Hernandez opened up the cab, he made an amazing discovery. The original paperwork was still inside, showing this was the actual machine delivered to Tim straight off the production line and which had sat in the Stryker family home. A true 'grail' find, as they say in coin-op collecting circles.

A year of pain-staking restoration later, this beautiful machine was unveiled at 2017's Florida Freeplay event in front of 14 members of the Stryker family, including Tim's wife, children and the grandchildren he never knew. There wasn't a dry eye in the house. You can read the whole miraculous and moving story at *Missile Command* champ Tony Temple's site arcadeblogger.com.

RETRORATED

>> This month we check out the portable and virtual reality versions of the fifth Elder Scrolls game, play through Kirby's latest offering and discover if Super Lucky's Tale is worth spending your hard-earned money on



» [PS4] While the motion controls add massively to the VR experience, they make traversing Tamriel very difficult.

The Elder Scrolls V: Skyrim

SKYRIM ON THE BUS AND SKYRIM IN YOUR FACE

INFORMATION

- **FEATURED SYSTEM:** SWITCH, PS4
- **ALSO AVAILABLE ON:** VARIOUS
- **RELEASED:** OUT NOW
- **PRICE:** £49.99 (PS4) £49.99 (SWITCH)
- **PUBLISHER:** BETHESDA
- **DEVELOPER:** BETHESDA
- **PLAYERS:** 1

» [Switch] Using Amiibos will allow you access to loot chests, but many of the included items are quite trivial.

It's astonishing to think the *Elder Scrolls* series is nearly 25 years old now and it's equally astonishing to see how much mileage Bethesda has squeezed out of the fifth game in the series. Since its release in 2011, *The Elder Scrolls V: Skyrim* has been released twice on PC, as well been ported to major home consoles. It's now been updated again for the Switch and PS VR, and we were interested to see how they both hold up.

The Switch version is a particularly impressive beast as it includes the full game and all three of the game's expansions, all of which have been crammed onto a single cartridge. It's taken something of a graphical hit, which is particularly noticeable when played docked, but it's still easily on par with the first-generation versions of the game and certainly doesn't detract from the experience. *Skyrim* really shines in portable mode, however, and it's hard to believe that you're playing a game of this magnitude on a handheld. Everything just looks so epic. In fact, playing *Skyrim* portable becomes fantastic fun, as the quick save option of the game allows you to easily pick up and play whenever you need to.

Less impressive, however are the motion controls that have been added to the game. They're nowhere near as precise as we'd like and all they really do is highlight the fact that *Skyrim*'s melee combat remains as weak today as it was in 2011. Having said that, picking locks becomes a lot more fun and spellcasting is pretty good as well, so they're not a complete waste of time. Thankfully, you don't need to use motion controls if you don't want to, meaning you can simply get lost in *Skyrim*'s huge world. Another bone of contention we have is that it simply feels too expensive for a game that came out six years ago and has

BRIEF HISTORY

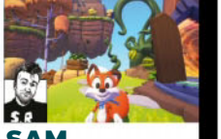
» *The Elder Scrolls* series started off with the PC release of *Arena* in 1994. The series gained more recognition outside of the PC market with the release of *Morrowind* on Xbox in 2002, but received widespread acclaim with the released of *The Elder Scrolls IV: Oblivion* in 2006.

★ PICKS OF THE MONTH

DARRAN

Stern Pinball Arcade

I'm a sucker for pinball games, and while the lack of portrait disappoints, the tables are still fun to play.



SAM

Super Lucky's Tale

Playful's platformer is certainly not without its flaws, but a good variety of levels and abundance of charm make it super enjoyable to play.

» [PS4] The sense of scale in *Skyrim VR* is superb. Even spiders will absolutely terrify you.

been reissued countless times already. There's no denying *Skyrim*'s huge campaign and copious sidequests will keep you going for ages, but it still hard to ignore the game's cost when you look at how much other versions are currently available for. Still, it's *Skyrim* and it's portable and bonuses like Amiibo support and the aforementioned motion controls mean it's far from a lazy port.

If *Skyrim* manages to impress on Nintendo's Switch then it absolutely smashes expectations when played in virtual reality. Yes, its textures take a big hit in order to hit the required frame-rate that's needed for all VR games, but the sense of walking around the world of *The Elder Scrolls* is easily the best VR experience we've had yet – and we've had some incredible ones over the last year. Everything about the world feels tangible, living and breathing, as if you can reach out and touch the very things in front of you. And in many ways you actually can because *Skyrim VR* does give you the option to use motion controls, which feel a lot more natural than they do on the Switch.

They're something of a double-edged sword, though, for while they allow you to easily admire your weapons and effortlessly pick up the many items you find on your travels they can also be very hit and miss at times, particularly when going through the motions of notching and firing your bow. The biggest issue when using motion controls, though, is that there's no simple way of easily navigating the environment, turning movement into a fiddly and frustrating experience. Sure, it feels great using your arms to fling spells about, but it becomes an absolute nightmare when you want to run away from enemies that get too close to you. You're better off playing the game with a traditional pad, as that's the way it was designed in the first place. Granted, you lose a little immersion this way, but it doesn't take away from the sheer impact that climbing to the top of a mountain offers, or the feeling that washes over you as you watch the sun rise. Being in the world of Skyrim is one of the best VR experiences gaming has so far offered and we hope other developers will follow suit as virtual reality remasters of classic games would certainly be worth revisiting.

» [Switch] You'll find a few nods to *The Legend Of Zelda* in Switch *Skyrim*.

Regardless of what system you choose the core game remains exactly the same, meaning you've an epic adventure in store of you that will see you choosing between rival factions, delving into all manner of dangerous dungeons and facing off against some truly terrifying dragons. While many of *Skyrim*'s mechanics have been improved upon by later games since its release, it still manages to offer a satisfying sense of exploration and discovery that few other games are able to manage – more so when playing in VR. PS VR owners certainly get the better deal, but no one really loses by buying these latest versions of Bethesda's award-winning RPG.

» [Switch] As with the earlier versions of *Skyrim*, projectile combat is far more enjoyable than melee.

WHY NOT TRY

▼ SOMETHING OLD

ULTIMA: THE FIRST AGE OF DARKNESS (PC)

▼ SOMETHING NEW

THE LEGEND OF ZELDA: BREATH OF THE WILD (SWITCH)

In a nutshell

While it's let down somewhat by its motion controls, *Skyrim* on *Switch* is nevertheless an impressive port that's only diminished by a high price point and aging gameplay. *Skyrim VR* on the other hand completely reinvigorates the game and feels like a brand-new experience, providing you stick with the traditional control method.

>> Switch **80%**

>> PS VR **90%**

PICK OF THE MONTH

Worms WMD

» **System:** Switch (Tested), PS4, Xbox One, PC, Mac
» **Buy it from:** Retail, online » **Buy it for:** £19.99

On a system that is as clearly designed for multiplayer as the Switch, releasing a *Worms* game seems like a no-brainer, and there couldn't be a better time for it. *Worms WMD* quickly solidified itself as the best *Worms* game in years when it arrived on other platforms in 2016, and thankfully the game has come over to Nintendo's new system intact.

Worms WMD takes its design cues from the most popular game in the series, *Worms Armageddon*, including the presence of insane Ninja Rope physics and classic, fan-favourite weapons such as the Concrete Donkey and Holy Hand Grenade. It then builds from that base with some additions that are so natural to the series that it's hard to believe that they're new. You can now take cover in buildings, which shelter you from the enemy's eyes as well as incoming fire. Vehicles including tanks and helicopters can be commandeered, providing extra mobility and firepower at the cost of vulnerability, and weapons can be dismantled and crafted into new, more potent forms.

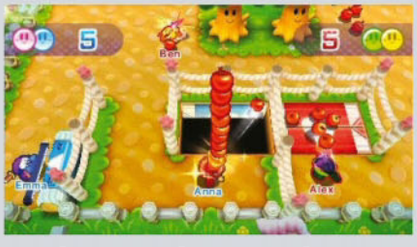
While there's a good amount of single-player content on offer, the heart of *Worms* has always been multiplayer, and every permutation that you could hope for has been included here. You can play with multiple controllers or pass a single Joy-Con between players. You can all play on the same screen, or choose between local wireless play and online play. It's possible to play the game in tabletop mode, but while the dinky screen is fine for one player, the small characters are a bit tough to spot with a few players crowded around. The Switch handles the game perfectly well, and you'll sacrifice nothing by choosing it over another version.

If you're looking for a game to play with friends, *Worms WMD* should be high on your hit list – it's a game that can be enjoyed by old fans and newcomers alike.

>> Score **87%**

» [Switch] MC Matey is about to feel the wrath of a megaton punch from the new mech suit.

» [Switch] All the old favourites are back, allowing for carnage like this Banana Bomb blast.



Kirby Battle Royale

» **System:** 3DS » **Buy it for:** £34.99
» **Buy it from:** Online, Retail

The latest *Kirby* game is a real disappointment. After the inventiveness of *Planet Robotbot*, HAL Laboratory has delivered a painfully dull arena-based brawler that does a poor job of celebrating Kirby's 25th anniversary. While unlocking classic Kirby abilities is decent enough, the actual fighting mechanics are extremely basic and the difficulty level is non-existant. The standard fighting is occasionally broken up by different minigames (one has you whacking Wispy Woods in order to collect their fruit for example) but there's simply not enough variety and you'll soon find yourself wishing for a more traditional platformer. Kudos to the team for attempting to take the pink blob in a new direction, but this feels like it should be a budget digital release and not a full-priced game.

>> Score **48%**

Super Lucky's Tale

» **System:** Xbox One, PC » **Buy it for:** £19.99
» **Buy it from:** Online, retail

A great game for younger gamers, sure, but *Super Lucky's Tale* certainly isn't a 'kid's game'. Collecting clovers as you progress through four weird and wonderful worlds, complete with kooky cast, it's clear this is a game trading on nostalgia and closely following the Nineties Platformer Formula(™) – mildly irritating camera and all. The cutesy levels (2D gauntlets, puzzles and runners scattered amongst classic 3D platforming fodder) may not offer a huge challenge for the most part, but there's a lot of fun to be had as you scamper around yeti-inhabited deserts or spooky carnivals as our plucky protagonist. Occasional bugs and awkward camera angles are minor annoyances in an awfully enjoyable game.

>> Score **79%**

Sims 4

» **System:** Xbox One (tested) PS4 » **Buy it for:** £44.99
» **Buy it from:** Online, retail

It's taken three years for Maxis' life simulator to reach home consoles and the results are mixed. There's no denying that taking control of a virtual life form as it goes about its daily business (particularly if they're dressed as Boba Fett) is as entertaining as ever, but it's hampered by fiddly controls and tiny menus that can make things difficult to read at times. The tutorial isn't very useful, either, meaning it's best to use a 'do and learn' approach when playing. Despite the poor optimisation, nothing can hide the fact that *The Sims 4* is still an enjoyable game, though, and it feels far more flexible than past iterations. Just be aware that weak control implementations mean it's a game that will frustrate as much as it delights.

>> Score **68%**

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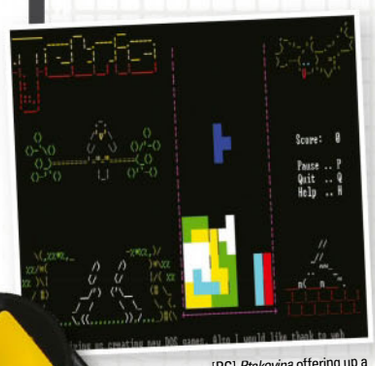
Gamers HOMEBREW

Brewing since 2005

» [Windows] Incomplete but interesting RPG action with *High Chivalry*.

Gaming NEWS

» [PC] *Understood* is the story of someone with alexithymia. And a pet mushroom.



» [PC] *Ptakovina* offering up a good version of *Tetris*.

DOS AND WINDOWS

High-Voltage.cz recently ran a competition challenging homebrew coders to produce games for DOS-based computers, which received several entries. The winner was *Silly Knight*, a platform-based adventure with very nice graphics, but there's also *House Breaker* for fans of platforming, at least the ones who enjoy a challenge. There was just one shoot-'em-up this time, a fun blaster called *Space Assault*, and fans of role playing might want to give *Dungeons Of Noudar* a try where the player steps into the role of a former priest charged with purging the Sacred Citadel of demons.

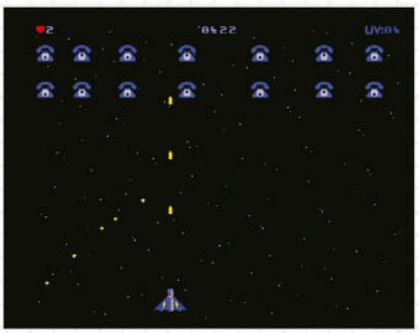
Alien River, on the other hand, offers simple, turn-based strategy as a lone soldier must fight off hordes of alien invaders using his wits and a small cache of grenades, while action puzzle lovers might want to give *Ptakovina* a go since it contains a couple of variations on *Tetris* along with a good implementation of Alexey Pajitnov's classic. Apart from the winner, everything in the competition uses ASCII graphics and all of these titles are available to download in one handy archive behind Kikstart.eu/hv-dos-2017.

Bringing things right up to date is the Indie Game Maker Contest 2017 where a significant cash prize pool was on offer for developers who could create a good RPG Maker-powered game in a month. This lead to a whopping 250 entries and there were a few that grabbed our attention for one reason or another. One example, *Project Fireball*, is set in the distant future and is described as an online escape room with RPG elements, and the mission needs three players to complete. If that doesn't grab your attention, there's *Understood*: built around the story of a young woman with alexithymia which means she is unable to identify or describe emotions – the game's author hopes to increase awareness of this condition through the game.

More traditional fare comes from the attractive but sadly-incomplete *High Chivalry*, the story of a boy who is thrust into the role of monarch by his family and, merely by being fair and just, finds himself in mortal danger with only his older brother to help. There's plenty more where those came from of course, although quite a few are in the early stages of development – we were simultaneously intrigued and slightly worried by *Monster Girl University* which the developer calls a "monster girl dating sim" – but information on all of the releases can be found at Kikstart.eu/indie-gm-2017.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **darran.jones@futurenet.com**



» [Amiga] You must dial your international access code.

HEAVY, MAN

Space Hippies is a simple but surreal gallery shooter for the Amiga which was written in the Nineties but only completed and released recently. The action is reminiscent of games like *Fire Blaster* with the player's craft sitting at the bottom of the screen and shooting upwards at enemies, making strange 'peow' noises as it does so. There's similar weirdness throughout in fact, with psychedelic colour effects on the title page and the waves of attackers looking suspiciously like telephones, ghosts and toilets. Blast your way off towards a download behind Kikstart.eu/hippies-amiga.

"The action is reminiscent of games like Fire Blaster"

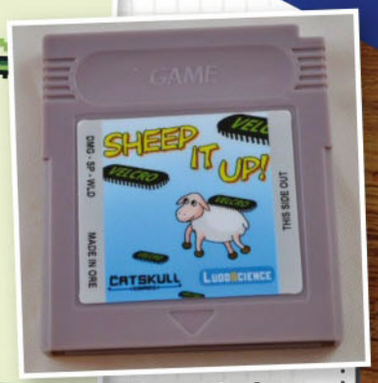
FAST AND FURIOUS

Would-be racing drivers can live out their fantasies with the unexpanded VIC-20 game *NitroWheels* by Enrico Bruttomesso, a vertically scrolling racer where driving at ridiculous speeds and staying alive by avoiding crashes with opponents are the only things of importance.

The other drivers aren't exactly being sensible or driving their brightly coloured vehicles carefully either, so manoeuvring around them is advisable, especially the cars that are swerving violently across the track. There is a fast car parked at the start of a long, straight track waiting behind Kikstart.eu/nitrowheels-vic.

» [VIC-20] Fast and furious driving action on an unexpanded VIC.

» [Game Boy] One small leap for a sheep, one giant leap for sheepkind.



» A newly-minted Game Boy cartridge, no donor parts required.

HOMEBREW HEROES

Sheep It Up is a game where a sheep ascends to the heavens by leaping and sticking itself to strips of Velcro. We just had to quiz developer Dr Ludos a little about what inspired him

THE BIG INTERVIEW

Where did the idea of a sheep sticking itself to Velcro come from?
The game project started this summer during the bitbitJAM#4. It's a development competition where people had to create a game for a retro hardware using the theme 'Velcro Sheep'. I had several funny ideas, but the best one was a sheep climbing up by jumping onto flying Velcro straps. So I settled on this idea and started to make the game!

And what kind of work was required to implement it on the Game Boy?
Compared to the Nineties, today we have a lot of new tools that make Game Boy development easier. For example, we no longer have to use graph paper to draw sprites – thanks to the Game Boy Tile Designer software, we can draw them directly on screen, pixel by pixel. Same goes for the development: we are no longer limited to assembly and the Game Boy Developers Kit allowed me to program in C, which is way faster and easier to handle. Last but not least, emulators like BGB or an EverDrive GB, take seconds to test each game build, even on real hardware. All of this allowed an amateur like me to create a Game Boy game on my own while a team of highly trained professionals was required to do it in the Nineties.

» [Game Boy] If Jeff Minter made Game Boy games, they'd probably be like *Sheep It Up!*.

***Sheep It Up!* cartridges are manufactured specifically for the game, how difficult was that to organise?**
As a software guy with no knowledge in electronics, I partnered with a brilliant hardware guru named David Degraw, aka Catskull. Among other things, he designed his own game cartridge PCB. As a game collector myself, I wanted to avoid any destruction of actual Game Boy titles to produce my own game so finding someone who manufactures his own carts was wonderful! He told me that my game was the perfect opportunity for him to launch a homebrew game publishing label. So now, every time you order a *Sheep It Up!* cartridge from CatskullGames.com, David will assemble it by hand. He'll then put a cute sticker I designed on the cartridge, and mail it to you. A few days later, you'll be able to run a brand new cartridge, made in 2017, on your 25-plus years old Game Boy!

What kind of feedback has *Sheep It Up!* received so far?
So far, anyone who played the game seemed to enjoy it. That is the best reward in the world for me. Despite its apparent simplicity, the game rapidly gets quite challenging, and it's always a pleasure to see players trying to beat the high score!

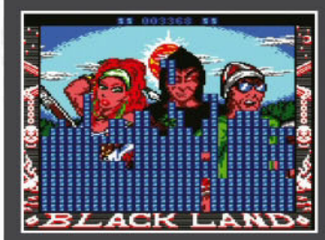
What are you planning next and is there another outing for the sheep?
I already have several ideas for other Game Boy titles, but to be honest, another dream of mine would be to make a game for the SNES. So, who knows, maybe next summer we'll be here discussing the release of *Super Sheep It Up!*.

Gaming REVIEWS

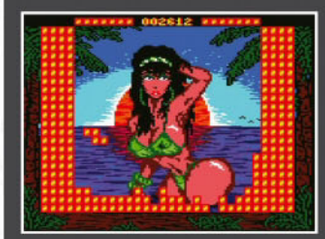
DO YOU REMEMBER?

Released by Amstrad CPC developers Bollaware in 1995, *Frestris* is a variation on the *Tetris* formula. The gameplay remains the same, but, rather than having a relatively small space to work in, the player is instead given a vast expanse to manage. While that might make it sound easier, completing rows while keeping the well tidy is still a challenge.

Each stage is completed when the quota of lines have been removed and the game throws some random shapes into the playfield at the start of each stage after the first to increase the challenge. Making changes to *Tetris* is risky, but these modifications work pretty well; games take longer to play but it still gets frenetic when there isn't much room left to manoeuvre. Kikstart.eu/frestris-cpc will take you to the download.



» [Amstrad CPC] Things are starting to get just a little out of control.



» [Amstrad CPC] Making progress and being rewarded by a trip to the beach.

» [Oric] Busted just before finding out what those screens are doing.

BLAKE'S 7

» **PLATFORM:** ORIC » **DEVELOPER:** JOSÉ MARÍA ENGUITA » **DOWNLOAD:** KIKSTART.EU/BLAKES-7-ORIC » **PRICE:** FREE

» [Oric] Here's Roj Blake doing a little bit of unsolicited maintenance.

» [Oric] The first step to escaping is getting some guards into the cell.

Humanity may have expanded beyond Earth but that growth comes with a price: the Federation rules over its colonies ruthlessly, using a combo of mass surveillance, brainwashing and medication. One of the people under their thumb is Roj Blake, who struck a deal that saw his family whisked off to the safety of the outer colonies in return for Blake himself remaining on Earth, toiling away in a domed city because the planet's atmosphere is poisonous.

Or at least that's what the state wants him to believe, but things aren't as they seem and it's Blake's friend Ravella who starts him on a journey towards remembering who he actually is, a prominent resistance member captured and forced to betray his friends before brainwashing converted him into a model citizen. And neither Ravella or Blake know that the Federation is keeping an eye on our hero in the hope that the current resistance leaders will find him.

Blake's television world is a dark and dystopian one where the state gets away with murdering a group of rebels and discrediting Roj Blake himself with false accusations of child molestation in the first act. But despite references to these events in the game, the overall tone is lighter. The character graphics are endearing including the villainous Servalan, much of the dialogue is amusing – Avon will butt into conversations to insult people – and Blake occasionally points out while talking to the player that he's aware of being in a game.

The style of Lucasfilm adventures are an obvious influence on how *Blake's 7* works and, although it's possible to get stuck on some of the more esoteric puzzles, the player can't choose any dialogue options or actions which will lead to Roj's death. The presentation is also very solid, including a good rendition of the late Dudley Simpson's wonderful theme music and the occasional cutscenes which drive the plot forwards, nicely wrapping up a great package.

>> Score **93%**

BEARS!

» **PLATFORM:** AMSTRAD GX400/464 PLUS/6128 PLUS
» **DEVELOPER:** SOHDE TEAM » **PRICE:** FREE
» **DOWNLOAD:** KIKSTART.EU/BEARS-CPCPLUS

» [GX4000] Fighting doggedly in the kennels, thankfully there's just one enemy here.

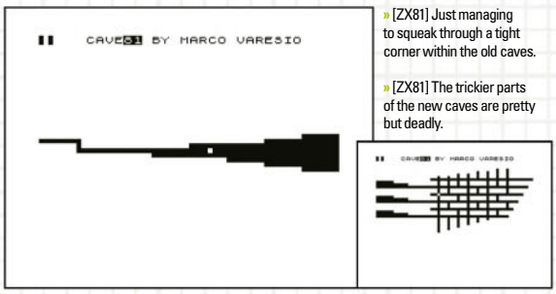
If you go down to the woods today, something is wrong: Grizzly Manor's resident Lady Grumpleton hasn't been seen for days and one bear in particular is becoming worried enough to leave the comfort of his cave. The bear starts out quite weak and with only a couple of abilities, but new skills, helpful items and more health points are sometimes awarded after vanquishing enemies. There are pieces of map to collect, which makes navigating a little easier while talking to bears and other woodland residents might prove helpful to our hero as well.

Strategy is important in *BEARS!* and simply flailing your paws around isn't going to end well after the first couple of battles, so understanding the cycle of attacks a foe uses will really help. Overall, this is an interesting role-playing game with a quirky theme to it which should entertain gamers who like a little turn-based combat with their exploration.

>> Score **81%**

YOU MUST HAVE PASSED ALL SORTS
OF STRANGE CREATURES TO GET HERE,
YOU MUST BE A VERY BRAVE BEAR!
HEE, YOU'RE REALLY QUITE SOMETHING!

» [GX4000] could be wrong, but this lady bear appears to be flirting with me?



» [ZX81] Just managing to squeak through a tight corner within the old caves.

» [ZX81] The trickier parts of the new caves are pretty but deadly.

CAVE81

» **PLATFORM:** SINCLAIR ZX81 (16K) » **DEVELOPER:** MARCO VARESIO
» **DOWNLOAD:** KIKSTART.EU/CAVE81-ZX81 » **PRICE:** NAME YOUR PRICE

Based on a game originally developed for Seventies computers supporting the CHIP-8 interpreted programming language, *Cave81* sees the player guiding a square through a series of treacherous caverns. The exit to each screen is always to the right, and once the square is set in motion it won't stop, so quick reflexes are required to both work out a safe path while simultaneously trying to avoid smashing headlong into a wall.

Being able to select the speed of play and number of reserve lives through the title page menu means that players can adjust the game to their taste and there are two sets of caves to negotiate which offers some variety, but there aren't many screens to work through or other hazards apart from the cave walls to worry about so, although what's there is quite entertaining, *Cave81* can't really offer much in the way of long-term challenge.

>> Score **68%**

ROUNDUP

Jonathan Cauldwell's latest game *Egghead 6* was released as part of a bundle within the *Crash* annual 2018 Kickstarter campaign and can now be downloaded for free from the author's website behind Kikstart.eu/cauldwell-downloads. Players take control of the loveable ovoid as he literally goes to town, jumping between platforms, collecting items and avoiding enemies, sometimes in very familiar locations. We'll be taking a more in-depth look at this one soon.

It was included on the disk with *Planet Golf* which we looked at in issue 175, but now Antonio Savona's *2K Race* on the C64 is available to download. This is a simple action game with a vertically scrolling tunnel and the player must flip back and forth to avoid holes. Head to Kikstart.eu/2k-race-c64.

WAY OF THE EXPLODING FIST

» **PLATFORM:** ATARI 8-BIT » **DEVELOPER:** FANDAL AND MIKER » **DOWNLOAD:** KIKSTART.EU/WOTEF-A8 » **PRICE:** FREE

***The Way Of The Exploding Fist* is all about mastering the range of kicks, punches, sweeps and blocking moves available in order to defeat your opponent.** Each successful blow is worth either half a point or a full point – represented by yin and yang symbols in the status area – depending on execution. It's possible to get to third or fourth Dan just by spamming a couple of moves in the single-player campaign, but after that point it helps to properly understand the controls.

This program has been ported over from the C16 – something of a surprise considering that version only received a lukewarm reception when released – so although this port is quite fun for the odd battle, and a two player mode is available for those karate-loving friends want to fight, this conversion won't replace *International Karate* as the go to karate game for Atari 8-bit owners.

>> Score **63%**

» [Atari 8-bit] Our hero accidentally puts his foot in it and manages to score.

MAILBAG

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WIN!

Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books

BEAT THE TEAM

FLYING SHARK

For this month's score challenge we were inspired by Martyn's Ultimate Guide and took to the skies using our trusty blue biplane in Flying Shark. Let's see how we fared...

DARRAN **96,250**

"I'd forgotten how cheap and sneaky some of the enemies are in this. Fly past anything at your own risk as you'll most likely be punished for it."

SAM **69,980**

"Yay! I didn't come last! *Flying Shark* is a fun shoot-'em-up but super difficult at times. It's all about momentum - once you power up a few times, it all becomes a bit easier."

NICH **66,350**

"Take out the tanks first, because they're not fun to deal with when you're already ahead of them and they can still fire at you."

DREW **47,900**

"Next month we're going to do a *Street Fighter III* tourney. I've written it now, *and so it is most definitely going to happen* – be afraid, Darran."

» [SNES] We think we've worked out what Allan wants. Let us know if we're right!

STAR LETTER

HANDHELD HEAVEN

Hello chaps,
As Christmas approaches I can't help but think of games from the past, because of course it's a time that I've received many of them as gifts. I remember my first gaming present, a Game Boy with *Tetris*. I cherished that machine and still have it today, because it was the one thing I'd wanted that year, circled in the catalogue with a big star to show my mum how much I wanted it. It was the best Christmas ever. Every year afterwards, something good would come along – sometimes even something great – but no matter which games or consoles I got, nothing ever quite matched up to the first time I had a games console of my own.

But while it's taken well over 20 years, I think I've finally found something to top it. My son's now old enough to get his first console, and he'll be opening up a 2DS on Christmas morning. He's been pestering us for *Pokémon* all year, and he's going to get his wish. I can't wait to see the look on his face as he realises that he's got his own handheld for the first time, and the more I think back to my own first gaming Christmas, the more excited I get. If I can give my boy the same kind of joy I had, it won't matter what I get this year – I'll already be one happy dad.
Dale Stimpson

The Retro Gamer team often considers The Grinch an inspiration in Christmas-related matters, but we couldn't help but have our hearts warmed by your sentiments. The day will have been and gone by the time this issue is out, so we hope the 2DS went down as well as you'd hoped. Have a bookazine on us.

» [3DS] We'd imagine a few of you started your own gaming journey with a handheld and *Pokémon*.

NINTENDO MAGAZINE SYNDROME

Dear **Retro Gamer,**
Are you worried about the rebranding exercise you're undertaking? Surely you know what I mean – the fact that you're turning from a retro gaming magazine into a Nintendo magazine. Look at what we've had for the past few months. You brought back *Super Play* for a cheap SNES promotion, you put *Mario Sunshine* (surely this is barely even a retro game?) on the cover, and then you gave *Super Mario Odyssey* 100%. If that isn't blatant shilling, I don't know what is. I don't understand all this love for Nintendo, but it's pretty obviously there. We're not fools, so just come clean and admit that **Retro Gamer** will be called *Official Nintendo Magazine* by this time next year.
Allan Strunk

You might not be a Nintendo fan, but it's a little churlish to criticise us for covering the company. The SNES Mini was definitely the most exciting plug-and-play console of the year and *Super Play* was very popular with readers, and we're hardly alone in our praise of *Super Mario Odyssey*. That just leaves *Super Mario Sunshine*, and it seems like it'd be criminal to leave a critically acclaimed multimillion selling game off the cover just because Nintendo made it. Don't worry – we put *Sonic* on the cover last issue, and his sole reason for existing was to stick it to Nintendo.

HARDWARE HOOK-UP

Hi guys,
I've been thinking about Hardware Heaven for a while, and I'd like to suggest a revamp. While it's nice to see the hardware photography, to me the name makes it feel like there should be something more, like an 'ultimate set-up' kind of thing. So you'd show off a piece of hardware and then tell us how to get the best experience from it – so we'd learn what the best video cables are, which accessories add the most value, and whether any mods are recommended or even essential. You might even point out common faults that buyers could keep an eye out for when picking up retro machines.

Keep up the good work!
Liam Bedding

Thanks for the suggestion, Liam. We've had this sort of idea in the past, although our version was more of a 'How To' feature looking at single aspects of a system. Would it be cool? We definitely think so, although it certainly feels like it'd need more space than the

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existing Hardware Heaven spreads use right now. Is there interest in this sort of practical hardware guide? If you want to see it in the magazine, be sure to write in and let us know.

PLUNDER FOR PENNIES

Hi **RG**,
Thanks for your recent Xbox feature! I've always liked the system, but sold mine off to afford an Xbox 360. I couldn't believe how cheap the games are now, and promptly went on a buying spree so I could go through the *Halo* games again. I can't believe I got two of the platform's very best games for just £1 all in.

That got me to thinking: how do you know when a console's prices have reached rock bottom? The GameCube has clearly already gone past it because it looks like those prices are going up, but the PS3 and 360 don't feel like they're there yet. Do you have any tips for this?
Cheers,
Danny Richards

Finding the price floor for a platform is really a matter of luck more than judgement, in our experience. There's certainly no hard and fast rule, but we'd say that the low point usually comes when the machine is two generations old – it's a long way from being new, and the nostalgia factor is only just beginning to kick in. If you start to find non-sports games for a platform at charity shops, that's a good sign. Nintendo stuff tends to be pricier than rival systems because of the hardcore fan following, and right now Xbox and Xbox 360 games are liable to jump in price if they become backwards compatible with Xbox One. Happy bargain hunting!

» Does anyone fancy a guide on turning their console into its final form, as with this Booster Boy?

DISCUSSED THIS MONTH

The Greatest Games Machines

Next month's lead feature has been a major undertaking – we've calculated hundreds of your top ten ballots, watched as first place repeatedly changed hands between two leaders and agonised over presentation. Did your favourite system make the list? Check back in next month's issue to find out…

» If you can work out the right timing, you can clean up on older games, like Darran did with the Xbox.

From the forum

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

What's your favourite football game?

» [Amiga] Sensible Soccer remains a firm favourite with footy fans.

fredghostmaster
My favourite is The Boss by Peaksoft on the Spectrum though that is a management game. I used to have some great late night, post-pub drunken battles with my mates on *World Cup Italia 90* on the Mega Drive, back in the day. Great memories.

ncf1
Virtua Striker 3 is the best football game ever. *Rainbow*!

Mayhem
Favourite traditional-style football game is probably *Winning Eleven 6: Final Evolution* for the GameCube, arguably the best iteration of *WE* (aka *PES* in the West) that has been hard to match since. Non-traditional football game, then probably *Sega Soccer Slam*, that was manic and a laugh to play seriously or not so seriously!

PostieDoc
Sensible World Of Soccer just pips *Kick Off 2* to best football game ever for me. Trounces the likes of *FIFA* in the fun stakes.

paranoid marvin
European Football Champ (arcade). It had great graphics and commentary and the perfect combination of football and flying kicks.

merman
Microprose Soccer on the C64, which Sensible Software made before the amazing *Sensible Soccer*. Banana kicks, rain storms, video replays, tournaments and a cracking six-a-side game to go with the traditional outdoor game. With Martin Galway's crazy music and crisp overlaid sprites, a truly great game.

palestsaint
I think my favourites had to be *Match Day* and *Match Day 2*, superb at the time on the Spectrum. I also loved a goalkeeping game called *Peter Shilton's Handball Maradona* which was brilliant.

kiwimike
Can I say *Mario Smash Football*, or the football minigame in *Monkey Ball*? I like arcade-style and over-the-top silly fun – much like the way I like my racing games.

bounty bob
Soccer, by Thorn EMI for the Atari. It's a very basic game with simplistic graphics but was the first football game we had. I have some fond memories playing this with my big brother.

retro GAMER

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Greatest Games Machines Of All Time

You voted and we listened. Next month, developers weigh in on your personal picks and reveal their own favourite systems. Don't miss it!

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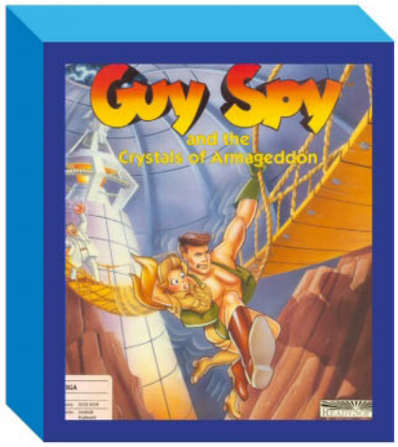
Big Trouble In Little China, Castle Of Illusion Starring Mickey Mouse, Earthworm Jim II, Looking Glass Studios, Rocket Knight Adventures, Super Puzzle Fighter II: Turbo

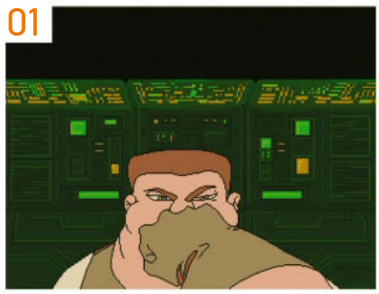
ENDGAME



GUY SPY AND THE CRYSTALS OF ARMAGEDDON

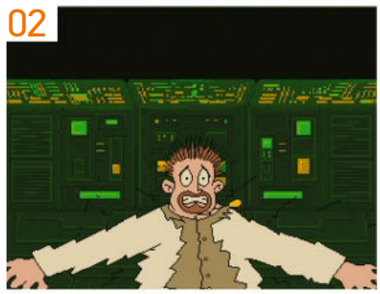
» Look, we're not criticising anyone, but we think it's kind of stupid to call world-shatteringly powerful artefacts "Crystals Of Armageddon" – a name like that is bound to attract the attention of power-hungry nutjobs like Baron Von Max. Now Guy Spy has to prevent this evildoer from acquiring them, in what happens to be a great excuse for a Dragon's Lair-style cartoon adventure. Let's find out how it goes...

01



» We're transported into Guy Spy's very own head for the dramatic finale, in which Baron Von Max gets his stupid beardy face punched. It's a dead meaty hit, too – look at how his cheeks have been blown out by the force.

02



» The blow sends our hero backwards and he lands on computer equipment which electrocutes him. This has gone from assault to potential manslaughter at the very least, but at least the world is safe from those pesky crystals...

03

» Guy Spy flees on a rope, alongside the kidnapped contact he rescued from Baron Von Max. Admittedly, she probably wouldn't have been kidnapped had Guy not been involved, but let's ignore that pesky detail. Guy gets girl – winning formula.

04

» The ancient Incan temple which hid Baron Von Max begins to explode, as our hero and his companion look on. Now, Max may have been plotting to build a doomsday machine, but at least he didn't destroy a Grade I listed building. Guy Spy has no regard for sites of historical interest.

05

» Of course, the story can't end until Guy Spy and the kidnapped woman share a kiss. Nothing turns the ladies on more than wanton property destruction and the potential death of another human being, after all. Still, it manages to be better than the ending to *Jurassic World*... [Ed - you take that back!]

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